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Devoted to the Interests of

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Assistant Editor

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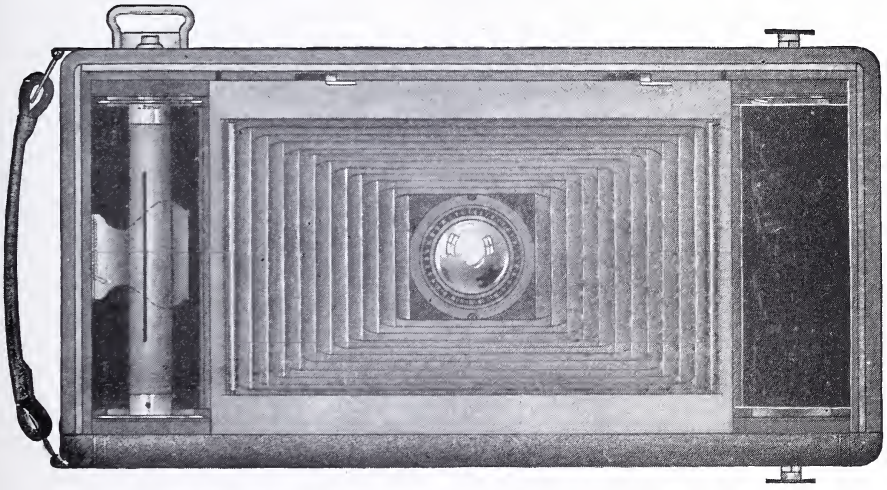
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CHRISTMASTIDE — *Floyd Vail*

The Photographic Times

VOLUME XLIV JANUARY, 1912 NUMBER 1

THE PRACTICE OF WINTER PHOTOGRAPHY

BY C. H. CLAUDY.



IN MARCH, of 1911, I had the honor to have a story in these columns devoted to proper values in the photography of snow. Since that time there has been (to at least a modest extent) some demand for what various writers of letters to me have called by turns "more practical information—something more specific—a story dealing with particular cases," etc., etc.

So that the retelling of the same story here, hung this time on particular photographs, made of various phases of winter scenes, needs no further explanation on my part than the statement that it is written in answer to these several requests.

All too generally, in the humble opinion of the present scribe, the publication of pictures in photographic magazines is of the class which is above the attainment of our mythical friend the "average amateur." He is constantly besought to look up to a certain standard, rather than on the class of work he is accustomed to do—he is shown pictures which in some, if not in all, ways are well nigh perfect, rather than photographs which, like his, are faulty, and told the reason why. All of which can serve for apology (if any be needed), for the illustrations which accompany this story, presented in no sense as being either beautiful, artistic or in any ways remarkable, and merely because they illustrate some point which is to be "specifically brought out."



A STOP FOR BREATH (*No. 1*) *C. H. Claudy*

Enough of preamble and explanation. Let us up and at it. Look first at that illustration of a cold and windy day automobile party ("A stop for breath"), stopping to get warm—look, rather at the pair of such illustrations, since there are two. One printed properly, one improperly, both from the same negative.

This illustration (which is one of a series for an article on winter motoring), was made about eleven in the morning, in February, on an Orthonon plate with a Goerz lens at *f*6.8 exposure quickest-possible-bulb—perhaps a fourth of a second. Developed under normally in a tank with the usual twenty minute solution diluted so that twenty minutes would have been normal time. Printed, in the one case on soft glossy Azo, close to the light, on the other case, on Portrait Velox, some distance away. Carbon Velox was not used as being entirely impossible for the negative. The two results show what can, and what cannot, be accomplished with the proper exposure, development and printing.

The exposure of course, was very full. The development, a little under. The proper print—on the soft Azo (one of the softest of soft papers), shows a hazy, dull, misty sort of atmosphere, which was exactly



A STOP FOR BREATH (*No. 2*) *C. H. Claudy*

what was desired, that being just the kind of day it was. The shadows are light, have detail, the highlights subdued, the "scale" of the photograph short. The second print is hard and harsh. The snow in the road is too dark, the dirt is black, the trees are black, detail is swallowed up in the clothes of the people and the "scale" of the whole is steep. The effect is entirely different, and quite untruthful; the first picture, whatever its shortcoming may be as a perfect photograph, does simulate conditions as they were when the picture was made.

Moral, don't think that "get it in the negative" is the last word in winter work—use some sense in your printing.

May I inquire of one particularly disgruntled reader if this case is specific enough and covers a specific question asked me?

I am told by some who have tried the formula suggested in my previous story on snow work in these columns that ill success has attended all efforts to get brilliancy in snow pictures which have been made with ample exposure for the shadows and weak development to avoid blocking up the highlights. Of course, the by-paths down which any one may stray when traveling the main road which leads to photographic success are many and



SNOW

I cannot pretend to say which one those who have failed have strayed into. But I do call their attention to the two little photographs, one entitled simply "Snow," and the other "The Play Ground," as refuting that contention entirely.

The first I know little about, as to its make up. I didn't make it (wish I had), and don't even know who did—it was given to me. But it is a most beautiful example of how to make a briliant snow picture and at the same time have the results soft and natural. I know that it was fully exposed because in no other way could the detail of the branches been obtained—I know it was not harshly developed, because the delicate tracery of shadows on the snow would then been lost. I know it was made on Eastman film and printed on Solio paper and that's all I do know about it. But note the high key, the brilliancy of the lighting, yet the softness of the shadows—note the soft sky (no bald-headedness here), and note, too the fact that the snow is not white paper but full of detail.

The Play Ground was a snapshot with a Graflex on Eastman Film without a ray screen, at noon in March, made with a Zeiss Tessar Lens working at *f*4.5, exposure 1/25th second. Developed in a tank, with a five cent powder exactly according to instructions—printed on special carbon Velox. As you will know without being told, it was made against the light, the operator (myself) standing in the shade of a tree so that the sunlight did not strike the lens, and looking almost directly towards the sun, though not quite. Yet please note that by the same magic formula, of ample exposure and normal development, the shadow side of the faces is full of detail, the shadows of the trees across the snow are full of detail and the key of the whole is light and high and in spite of the naturally great scale of tones from dark overcoat to white snow, there is no violent contrast in the picture. Also, the snow looks like snow, and not like paint.

It has been said to me "it is all right to advise long exposures and short development on stationary work, but what do you do when you want to make speed pictures in the snow?"

Well, I do the best I can!

Sometimes the "best" is better than other times. The best way, of course, is to pick the spot for speed work in or on the snow, and have as little dark background and as high a key throughout as possible—such condi-



WINTER PLAY GROUND *C. H. Claudy*

tions for instance as are found in the open fields or on a bare hill side for coasting, etc. "The Retreat from Moscow," however, shows that by salving one's conscience with a little carelessness, one can sometimes make a speed picture (so-called) without such conditions, and still have details in shadows and background.

One hundred and fiftieth part of a second at *f*4.5, on Kodak Speed Film made this little bit of a photograph, in the woods. Note that there is detail in the shadows and in the snow and that the trees are not black nor dense. Yea, note also that the motion has not been stopped completely, both moving feet showing slight blurr—which is the "carelessness" advocated above. I preferred the motion and some tonality to sharpness and strong contrasts.

"Warming Up," is perhaps more to the point. This was one one-hundredth of a second, also on Kodak Film (not speed), with lens working at *f*6.8, and on a dark day—same day the first illustration talked about was made. Here we have contrast—clothes too black, snow too white. Yet the picture has action and the trees are not inky black. It is a compromise between the longer exposure which would have given the details everywhere and lost the sharpness of the hunk of snow being thrown across the road and the short one which would destroy such detail as there is.

There be times when it is wise to allow strong contrast—when to take it away from a snow scene would be to tell so outrageous a lie as to spoil all



THE RETREAT FROM MOSCOW — *C. H. Claudy*



CUTTING THROUGH



THE ORIGINAL KODAK BABY H. C. Claudy

chances for the resulting photograph being considered as even interesting. Such a time was when the little bit of a photograph called here "Cutting Through" was made—a picture of a giant snow plow cutting its way through a snow bank. The only print I have of this (not having made the negative) is slightly degraded but the general effect is brilliant enough. Now, had this picture been given more exposure, the result would of course have been to flatten it. And if it was flattened, it would be not nearly so striking. The white sky, white smoky steam and white snow give all the greater impression of snow and cold that the dark figures and the dark coal smoke show up so plainly by contrast. It isn't always, as in the case of "A stop for breath," that one wants a gray snowy misty non-contrasty result in snow photography.

One more little picture sermon and I am done. As an example of soft flat lighting obtained from snow surroundings, look at the picture of my



WARMING UP C. H. Claudy

small son (the original Kodak Baby). This enlargement (on Nepera carbon black, just dipped in a sepia toner and withdrawn, for warmth), was made outdoors, with a Graflex, on Kodak Film, at noon, with the brightest of bright sun shining. It was made in the shade of a tree, with the lad standing on snow. The exposure was one-fifth of a second, at *f*4.5, and while of course, it is a flat portrait—having no more light on one side of the face than on the other it is a living refutation of the arguments which say that exposure and development cannot greatly control lighting conditions. Had that exposure been the fiftieth or hundredth which is usually given under such lighting conditions, the result would have been burned holes for eyes, jet blackness for the red sweater, and a pasty whiteness for the cheeks as well as for the blue cap, and perhaps a streaky mess for what was then rather light blond hair.

Now once more (lest some one think for a moment that these efforts are here put forward as examples of how best to make *pictures*), the illustrations are but examples of certain points and are published here to talk about, in the hope that those who wanted specific and particular information as to how to apply the simple principles of snow photography as they appear to me and were written down by me in the last year's story referred to, would find in these little photographs and the accompanying comment, the practical help for which they looked.



FANTASTIC SHADOWS *Phil M. Riley*

SEARCHING FOR "LOST RIVER"

BY W. I. LINCOLN ADAMS.

With Illustrations by the Author.



ON AN ideally beautiful morning last September, a party of sixteen house-guests and neighboring friends started in their automobiles for "Wildwood" and Beaver Meadows to search for the mysterious "Lost River."

At Wildwood, about thirty miles from our place of departure, we encountered roads which were so rough and stony from disuse, and the wash of frequent rains, our motors could proceed no further with safety; and so the party left them there in charge of the chauffeurs, and, dividing up the luggage amongst the men and boys, went forward over the rough mountain road on foot.

It is a hard three miles tramp up the "Wild Ammonoosuc" Valley to Beaver Meadows, and the women and girls of our expedition showed themselves to be good mountaineers in the way they compassed it. There were no laggards, and no one asked for consideration on account of age or sex.

The road wound up the picturesque mountain stream, crossing it by rude corduroy bridges at frequent intervals; and, for the most part, through the moist and cool autumn woods. The way presented many attractive subjects for the camera, and the lights and shadows on this wonderful September day were particularly pictorial. If only the camera *could* photograph the colors of nature, as the eye sees them! After all, we rarely get more than the form, the substance of our subjects, the *spirit* of them, that elusive, evanescent quality which we sometimes see, and more often feel without seeing, is beyond the power of our lens and film.

We reached Beaver Meadows about noon, and passed through the deserted settlement of log cabins left empty there by the lumbermen at the conclusion of their labors in the spring. Beaver Meadows is one of the most picturesque places in the White Mountain region. It is surrounded by high mountains wooded nearly to their summits, with the grandeur of Moosilauke overshadowing it on the west. In its remoteness and wildness it transcends all the mountain passes of New Hampshire, and undoubtedly would be often visited for the sublimity of its natural scenery were it not for the difficulty of access.

The trail from Beaver Meadows to the beginning of Lost River, extends for only a mile or so, and then the real climbing of the day begins. But first we camp by the cold, clear waters of its source for our midday



LOGGING CAMP AT BEAVER MEADOWS

meal and rest. Here we build the usual camp fire, make our coffee, boil the potatoes, and partake of the lunch which we have "lugged" in. It is good to sit there by the purling mountain stream, under the forest trees, and leisurely eat the lunch which the keen air and active physical effort has made more delicious than the most elaborate indoor banquet.

Here we leave all superfluous clothing and other *impedimenta*, and proceed empty handed, and lightly equipped, for the exploration of Lost River



THE START FROM WILDWOOD



PARADISE FALLS, LOST RIVER

itself. First we must descend by precipitous rocks on rude steps and ledges to a depth of fifty or more feet. Then we crawl, one by one, under a huge, overhanging boulder and emerge in the darkness of a subterranean chamber, or passage, by the side of the rushing, boiling, mountain torrent.

Our progress now is painful and slow, under and over and along the sharp and slippery edges of enormous granite rocks and boulders, piled and left here and there in the geologic throes of a period which scientists say was fully *twenty-five thousand years ago.*

We pass through the silent "Chamber of Forgetfulness," peer into the "Cave of Lost Souls," look down into the "Well to the Center of the Earth," and gaze in wonder at the huge rock caldron called the "Devil's Punch Bowl." We come out into the soft light of day at the "Queen's Bower" clamber over the rocks and roots of the "King's Hall," and so on, slowly and wearily to the exquisite "Falls of Paradise." Here the rushing stream drops into a submerged basin fully thirty feet below. It is a mystical and dainty falls, and the sound of the descending waters is augmented by the hollowness of the surrounding cavern. I know of no such falls elsewhere in this country, and I wish the way to see them might be made more accessible, so that their wonderful beauty could be enjoyed by many. But perhaps this very remoteness and inaccessibility lends a certain kind of charm which might disappear if they were more easy of approach.

Of course, no photographs could be made after we once entered the subterranean stream, except by artificial light, and I was equipped only with a hand camera.

My own snapshots could only be made where light was sufficient, or nearly sufficient, with the hand camera, using films, of course, and giving the slow instantaneous exposure, (about one-twenty-fifth of a second), with the largest lens opening.

AN AMATEUR COMPETITION

BY SIDNEY ALLAN.

Illustrations by the Eleven Prize Winners.



THE accompanying illustrations are the result of an amateur Kodak competition in Erie, Pa. Erie is a town of about 66,000 inhabitants and the pictures show that there are at least a few in that locality who have a fair idea of picture-making.

There should be more competitions of this kind throughout the country. It tests the abilities of the amateurs and stimulates their ambition to make a real picture. The Holmquist Photo Co., the biggest supply store in Erie, conducted the contest more from the desire of developing photography in that section of the state, than from any profit accruing to the business. The prizes were most generous, and the first prize, a No. 1A Eastman Speed Kodak with Goerz lens, was surely worth having. One hundred and seventy-three photographs, by thirty amateurs, were entered. The judges were John Erickson, of the Erickson Studio; B. S. Jones, of the Eastman Kodak Co.; and the writer of this article.

"The possibilities of Erie and vicinity as a field for amateur photography of all kinds are as great as in any other part of the world," enthusiastically remarked Mr. Roy West, a postal clerk, the winner of the first prize. Well, that would hold good with any locality. Material for pictures can be found everywhere. But Erie can boast of an unusual share of natural beauty. There are hills and woods, farms and vineyards, splendid vista of the lake, and a most picturesque and attractive stretch of shore. And as the Kodaker with preference indulges in snapshots out-of-doors he becomes as a matter of course the exploiter of local scenery, and in that way helps to further the art appreciation in his home town. People may gush more about foreign scenery, but they are after all proud of any beautiful view that is pointed out to them



MOONLIT STRAND *Roy West*



MODERN MADONNA — *Francis F. Nagorski*



A STORMY MORNING — *W. C. Joy*



WAVE SPLASHES — *W. C. Schroder*



THE MATTERHORN *Miss Maude Willis*



A NIBBLE OR A BITE? *Mrs F. G. Andrews*

in their own surroundings. And nothing can accomplish this easier than amateur photography.

The trouble is that the average amateur is afraid of the technical part of his pastime. He may be able to select an interesting view, but he is apt to be stingy in size and with his material. Several of the prints on these pages would make excellent exhibition prints, but their present size is prohibitive. Their authors are either afraid of the expense or the extra work.

Mr. Roy West came out with flying colors. The three judges agreed at once upon this print, and if there had not been the rule that "only one prize can be won by any one contestant," he would have carried off half a dozen prizes. His "Moonlit Strand," is a pleasant little picture, only two and a half by five and a half inches in size. It is good in composition and the light effect looks real, although it was taken in sunlight. It was not taken until two or three days before the close of the contest, when he had a day's vacation and decided to spend the afternoon at his favorite haunt on the Waldameer Beach near Erie. He says that he has watched the same sun scores of times before he got the right conditions of the clouds in the sky and the "moonlight effect" of sunshine and shadow on the surface of the lake. A year ago he had taken a satisfactory picture of this kind, and when another opportunity



A NOONDAY RETREAT — *Anton Gottfried*

came, he pointed his camera directly at the sun and was successful at the first attempt. He has tried to get pictures of the lakeshore for three or four years past and his contributions were some of the best in the contest. But he has to work in larger size if he ever wants to become known as a leading amateur.

No. 2, by Francis T. Nagorski, a sepia print of the amateur's wife and baby, entitled "Modern Madonna," is really extremely amateurish. But it was the best figure composition and so it got the second prize. The triangular shape and the concentrated light on the baby are the best part of the composition. It is, however, bad in line, the body of the child makes no pleasant shape. The attitude is "posy," and apparently both mother as well as child seem to watch the antics of the operator. There is not the slightest trace of sentiment.

Through the kindness of Miss Maude Willis, who has traveled abroad, the photographs of some of the most famous places in Europe competed with the beautiful spots about Erie discovered by the amateurs. Her "The Matterhorn, Swtzerland," was awarded the third prize. It is an example of ordinary view photography. It has the merit of a favorable viewpoint and atmospheric quality in the sky and distance.

No. 4, by W. C. Schrader, entitled "Wave Splashes," a picture of large waves breaking over the old breakwater on the Waldameer Beach was fourth in the estimation of the judges. It is a queer composition, decidedly impressionistic. The two horizontal logs are rather obtrusive, but the row of vertical parts needed something strong to balance them. There is action in the breaking water and the shimmer of light on the lake is well rendered.



AN EVERYDAY JOB *John Bieber*

"A Nibble or a Bite," by Mrs. F. G. Andrews, really deserved a better prize than a postcard projector. The figure of the young girl, standing on the sandy beach and engaged in the rather futile effort of fishing with rod and line, is exquisite in action and outline. It is as dainty as a Jean van Beers who makes a speciality of feminine shapes. The judges, however, entertained the suspicion that it was a mere accident. For who could pose a figure in such a fascinating manner against the lake and sky, and at the same time leave the sand pail in the foreground right under the feet of the girl. This dark spot and the foolish shadow of the shape of a bayonet mars an otherwise delightful picture. As it is, it is one of the most charming figure silhouettes I have ever come across in amateur photography and it would be well worth while to remove the objectionable parts and make another print.

"Summer Sunshine," the sixth prize picture, by W. E. Jordan, is a satisfactory upright composition of creek and hillside. But where is the sunlight! There are some shadows visible on the bank, but surely the even tone does not give the impression of any sunlight. It seems to be late in the afternoon, when the clouds catch a shimmer of the setting sun. This is, however, none of our concern. The title of the picture is misleading.



ANCHOR LINE DOCKS, ERIE, PA. *Charles Carr*

That is all. The dark masses on the left margin are a trifle too heavy for the rest of the picture.

"An Every Day Job," No. 5, by John Bieber, is a genre study. A writer of the *Erie Despatch* claimed that it was "a typical scene of home life in this section." Well, who ever heard of such a thing! Potatoes are peeled everywhere and near the kitchen window as well as anywhere else. There is too much light in the picture. The figure is fairly well posed, but the table with the tin basin is placed too high, and the effect of the light curtain spoils the composition. The eye goes directly to the curtain. That is bad as it distracts the attention from the figure. Either the face of the woman or the hands should make up the main point of interest. It was a praiseworthy attempt, and it needed only a little more knowledge of composition to adjust the various objects in such a manner that they would have made a harmonious ensemble.

No. 8, "A Stormy Morning," by Earl C. Joy, is a characteristic view of the Erie river front. It represents the end of an old dock with the waves splashing over the framework and against the dark shapes of grain elevators. As a composition it is every bit as satisfactory as No. 1. It lacks somewhat in contrast, but why did it only get the eighth prize. Well, such are the mysteries of awarding prizes. I can only say that if I had been alone, it would have got the second or third prize. It is an excellent realistic scene and should be enlarged and in that case trimmed a trifle on the left margin.



SUMMER SUNSHINE *W. S. Jordan*

We now come to three pictures of contestants that should consider themselves extremely lucky that they got any prize at all. They are very ordinary. "A Noonday Retreat," No. 9, by Anton Gottfried, is a sample of the familiar sheep under a tree picture. It is spoilt by the wire fence and the shadow of the tree which kills the middle distance. Figure 10, "Anchor Line Docks, Erie," by Charles Carr, is just a photographic report of buildings, with no pictorial quality whatever. And "Among the Flowers," the eleventh and added prize (as there were originally only ten), by Edward Dennis, may do for an advertisement of rhododendrons. The idea was perhaps a poetical one, but it was not carried out. It looks cheap and clap-trap. A pity, too, as it is really a pretty girl. Well, the maker should be satisfied as he at least got a prize even if it was an added one, added special for his benefit I suppose. Besides there were fifty consolation prizes of postcard albums, or in other words every contestant received a prize.

This no doubt was done to avoid any ill-feeling, a photo supply company must after all look out for its customers. Yet I am of the opinion that "consolation," of this or any other sort, is apt to harm the dignity of a contest. A few prizes worth competing for, reasonable rules, and competent judges constitute all that is necessary for a successful amateur competition.

Nevertheless Mr. Gustav Holmquist, the moving spirit in the matter, deserves great credit for conducting these contests, and it is hoped that he



A SEPTEMBER STORM *B. Marshall*



AMONG THE FLOWERS *Edward Denny*

will have the whole-souled co-operation of all local amateurs for his 1912 contest that will start the first of January.

TRACKING CRIMINALS BY CAMERA

THE photographic plate is much more valuable than the human eye, in that it records what it sees. Effects upon it are cumulative; if something is too faint to be seen by the eye we may look at it steadily for hours without results, whereas the longer the sensitive plate is exposed the stronger becomes the image, until finally it reaches visibility. This property is valuable from a detective standpoint. Certain color distinctions, also, produce more effect on the plate than on the retina, as we are told by *Die Umschau,* in a review of a recent publication on the subject by Prof. R. A. Reiss. The following paragraphs are from a translation made for *The Scientific American Supplement*:

"A handkerchief which has been washed with soap is to be examined as to any possible traces of blood. The linen appears uniformly white without any stains. A chemical examination in such a case would be quite unavailing, as there is no information at all as to where the stains may be located. A photographic copy of the handkerchief taken through a dark blue light-filter shows distinct stains, which are then cut out from the linen and separately tested by a special method which establishes their true character.

"In another case a search through the living apartment of a person suspected of forging 100-franc notes, disclosed the presence of a number of

lithographic stones, the surface of which had been freshly scraped and polished. The ordinary methods for bringing out old drawings upon lithographic stones yielded an entirely negative result. It was only by photographing the slab after special chemical treatment that the pattern of the bank-notes was disclosed. Among these was one which had been engraved no less than twenty years previously.

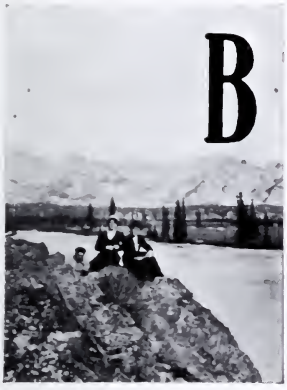
"At one of the public libraries it was discovered that a copper engraving had been abstracted. The thief had, however, omitted to remove the protecting tissue-paper cover. All efforts, aided by the context, to recall the character of the picture, proved fruitless, and the only resource left open was to endeavor to reconstruct by photographic means the vanished picture from any impression which it might have left upon the tissue-paper cover. This task was accomplished with complete success by photographing through a blue filter and re-enforcing the contrasts by the successive perforation of positive and negative copies. This resort was rendered possible through the fact that the grease of the printers' ink had been partially absorbed by the tissue-paper, and had, by oxidation, imparted to the same a slight yellow coloration quite invisible to the eye. The engraving was later discovered in the thief's possession.

"The examination of a drowned woman by photography disclosed distinct evidence of strangulation, marks which were absolutely invisible to the naked eye. On the basis of this evidence it was subsequently established that the drowned person had been thrown into the water after a previous struggle.

"Among other instances of the use of photography to detect crime or unravel mysteries may be briefly mentioned the discovery of the traces from pencil characters upon paper over which the actual writing-paper had lain during the act of writing; the detection of postmarks upon postage stamps chemically treated to renovate them; the development into visible form of previously invisible ink impressions; the detection of fraudulent tampering with sealed mail-matter; the regeneration of the text of charred documents, etc.



AN INTERESTING LETTER



A WELL REPAID CLIMB

BEING an interested reader of THE PHOTOGRAPHIC TIMES, I saw in the September number, that you would be pleased to receive samples of amateur photography. I have been interested in photography for a long time now. I have taken pictures in four different countries, England, France, Canada, and the United States and find that each country has its difficulties to overcome. In the June number there was an article and illustrations on Switzerland, the play ground of Europe. Now I was privileged to live two years in Banff (Alberta), the play ground of Canada, altitude 4,700 feet and was able to photograph a great many beautiful spots, some of which I am sending you.

The Devil's Lake was taken on a beautiful June day. It was a snapshot taken from a boat with a number three folding pocket Kodak, stop 16. The enlargement was made with the Brownie Enlarging Camera.

A Well Repaid Climb. Instantaneous, stop 16, taken at the end of April. The river was still frozen, but the snow had melted from the lower ground. April and May are the best months in the Canadian Rockies, before the smoke from forest fires obscures the landscape.



A SUMMER PICNIC — B. Marshall



THE SQUAWS' RACE



SPRAY LAKE *B. Marshall*



THE DEVIL'S LAKE *B. Marshall*

The Squaw Race, snapshot, stop 32, was taken in July. Note the smoky landscape.

Spray Lake. Snapshot, stop 32, taken in August, altitude some 5,000 feet.

A September Storm. Snapshot, stop 8, is one of those sudden snow-storms so frequent in September in the mountains.

A Summer Picnic. Snapshot, stop 8, was taken since I have been in California, with a number 3A Folding Pocket Kodak.

I hope you will write and tell me where my faults lie, for even if some of my pictures are good, a great many are failures.

Yours very truly,

(Miss) BIRDIE MARSHALL.

PHOTOGRAPHIC JOTTINGS FROM LONDON

BY REV. F. C. LAMBERT, M.A., F.R.P.S.

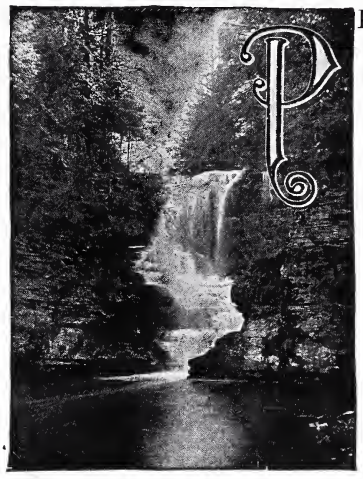


PHOTO-MICROGRAPHY is such a long and fearsome word that one is not surprised to find it has grown quite a lively crop of misunderstandings —viz., that it is difficult, expensive in the way of apparatus, requires a lot of previous training, with a microscope, and so forth. At a recent meeting of the R. P. S., Mr. A. E. Smith did good service in showing that these mistakes had but only a semblance of foundation, and that any one who can, with an ordinary lens and camera, make a good negative of, say, a landscape, building, figure, or portrait subject, can very easily pass on to photo-micrography, if only he will be content to go slowly at first, and leave the more difficult subjects and big magnifications until some experience has been gathered.

Without attempting anything like hard and fast lines of demarkation it is convenient to divide this class of work into three big groups. First that which *can* be done without using a microscope in conjunction with the camera. This practically limits us to lenses of, let us say, two inches focal length or longer, or shall we say ten diameters magnification.

Secondly, the use of shorter focus lenses, giving us magnification from ten to two hundred and fifty times, and thirdly, magnifications up to one thousand times or more.

Beginners are advised to start with low magnification, and pass on to higher scales as experience is gathered.

The greater the magnifications, the greater the need to guard against the evil consequences of vibration, Iso plates, backed, and some suitable yellow filter are all but essential for transparent objects. Contrasts can be greatly increased or reduced by the use of properly selected color filters or screens. Backing the plate is not always essential when dealing with opaque objects. Mr. Smith, contrary to custom, finds he can get the best definition with a red filter, while theory says one ought to get it with a monochromatic blue light. He warns workers against accepting too literally the reputed focal length of micro objectives. Thus a reputed one-third inch may be one-quarter or one-half inch, and so on. By dividing the lens-to-image distance by the focal length we get the magnification, *linear* or *"diameters"* as the photographer prefers to term it.

A micrometer is a thin glass having fine diamond drawn lines 100 and 1,00 inch apart. If we measure our ground glass image of these lines with an accurately divided inch scale we can read off the magnification and dividing this by the "extension," *i.e.,* lens to image we get the focal length o'

the objective. For example, if our one one-hundredth lines are three-quarter inch (*i.e.,* seventy-five one-hundredths inch apart our magnification must be seventy-five times. Suppose the extension or lens to image be fifteen inches. So fifteen divided by seventy-five, *i.e.,* one fifth, is the focal length of the lens. If we remember extension = magnification multiplied by focal length we shall have no difficulty. As a matter of fact this way of putting matters is not absolutely (mathematically) correct, but it is quite near enough for all practical purposes.

With regard to illuminants Mr. Smith sums up the matter somewhat thus; oil lamp, yellow and low; gas mantle, shows pattern of mantle; acetyline, good but has offensive odor; arc, powerful but gives much heat. Nernst, best of all.

The chairman pointed out that a great deal of the heat of the arc could be abolished by using a water cell or glass tank and that a very dilute solution of ferrous sulphate was better than plain water for this purpose, as it absorbs the rays up to the infra red.

Mr. Smith expounded a method of stereoscopy with the microscope. This essentially consists in using a pinhole stop placed eccentrically—say midway between the center and margin. One negative is taken with the stop to the right hand side, then the stop is shifted over to the left and the second negative taken. This method calls for more detailed discussion than I can give it here, but I hope to go into this matter with diagrams, etc., very shortly.

Few of the later introductions into the photographer's work-room have given rise to more varied opinions and conflicting theories than ammonium persulphate used for reducing negatives or bromide prints. We are therefore extra grateful to Mr. J. W. Dodgson (University College, Reading) for his scholarly investigations. Briefly put the action of persulphate is two-fold. First the solution of a quite small amount of silver, forming a silver sulphate and ammonium sulphate. Second the oxydation of some of the gelatine of the film. This in turn brings two results, viz., the removal of some of the silver mechanically and this brings a lower layer of the silver image into contact with fresh persulphate and so leads to further solution. This action of rendering the outmost layer of the gelatine soluble and removable gives us a good reason for the swabbing of the negative with a soft tuft of cotton wool; a procedure most of us have practised without perhaps being very clear as to why we did it, being content to know that it hastened matters. Also we can foresee what would happen if the negative were allowed to remain in the persulphate solution too long. Further it explains why this reducer flattens contrasts. For where there is most silver of the image there is the greatest oxidizing of the gelatine and consequently the greatest removal of the silver image.

It is now a good many years ago that Dr. Jannsen said that by over-exposing one could get reversal, and by further exposure get re-reversal Many people tried to repeat his experiments with dismal failures and so re-reversal was one of the things photographers talked about with elevated

eyebrows. However, as Shakespeare says, "Reserve thy judgment." For Mr. J. Sterry, who from time to time has taught photographers lots of things, now explains how he made a strip negative of graduated thickness, so that each step required some five times the exposure of its thinner neighbor. The series consisted of eleven such steps which means a range of exposures extending from one to somewhere in the neighborhood of 10,000,000. If the exposure be adjusted so as just to penetrate the denser parts with bromid paper, and a very dilute developer used, the resulting strip shows reversal and re-reversal. It would appear that with what we call normal development the first part is so quickly over that its existence is not observed at all.

At the present time there seems a strong tendency towards somewhat larger prints than those which have been engaging our attention lately. Therefore it may be timely to remind the "youngsters" that big earthenware dishes are not really necessary, though in some respects they are convenient. One can get along quite well with home-made dishes if only a little care be employed.

By way of example suppose 12 x 15 inches is the size that ambition dictates. First make a wooden tray with an inside measurement of not less than 13 x17, (*i.e.*, one inch wider all the way round than the print), and 2 to 3 inches deep. One need not worry about trying to make it water-tight. Now take a piece of shiny smooth surface American $17 + 3 + 3 = 23$ inches long and $13 + 3 + 3 = 19$ inches wide so that when the corners are creased into "dog's ears" it makes a lining fit inside the tray. A few tacks will hold it in position. This is our developing dish. A second similar tray is required for a fixing bath. The exposed paper should be made quite limp by swabbing both sides with a good sized loose tuft of cotton wool and plain water. It will now lie quite flat on the bottom of the developing tray! The developer is prepared in a graduate or cup, and applied by swabbing it with the cotton wool. This requires far less developer than is the case when the developer is poured onto the print and the dish rocked. Also it enables one to encourage certain parts by giving them a little extra attention with the cotton wool. All one need do is to apply enough developer to keep the surface well wetted and not to leave any part too long without swabbing. N.B. One must avoid anything like rubbing the print so that the cotton wool tuft —which should be about the size of a hen's egg—is quite loose and floppy. After developing rinse the print by squeezing over it a sponge full of clear water once or twice. Then transfer it to the fixing tray and swab with freshly mixed acid fixing bath, (*e.g.*, hypo, 4 ounces; metabisulphite, ½ ounce; water, 20 ounces. Use this very freely and keep draining out the dish. Allow ten minutes for fixing, then the print may be washed in not less than six changes of water of five minutes each lot in the lavatory bath.

If the reader is tolerably handy with tools he will have no difficulty in making a wooden tray that is *nearly* water-tight by making close joints and screws—not nails. The wood should be about one half inch in thickness,

free from knots, and dry. Teak is good for the purpose. Now melt a good handful of paraffin wax in a gallipot or saucepan. Make the tray hot by holding it in front of the fire and then with a brush apply the melted wax liberally to the inside of the tray. As soon as this solidifies take a warm flatiron just warm enough to melt the wax again and go over and over again all round the inside of the tray. If this proves insufficient I give several other receipts for water-proofing wood trays.

1. Melt together slowly in a saucepan on the oven top equal parts of guttapercha and paraffin wax.

2. Melt together 4 parts of common resin and 1 part of beeswax.

3. Shellac dissolved in methylated spirit to form a creamy consistency.

I may add that when I began photography thirty-something years ago I got a deep Yorkshire pudding tin dish and gave it a couple of coats of Brunswick black and then used this as a fixing bath for several years.

The point about wooden dishes is that we can make them any size we like, and if they get a knock they do not break. When they get leaky one can easily doctor them up with a fresh dose of the water-proofing material whatever it may be that we have used. The outside of the tray is best painted white and so is more easily seen.



SURF *W. H. Ruf*

Editorial Notes



UR good friend, Vail, who contributed the greatly admired frontispiece for our December number, has promptly realized for us the wish which we expressed in that issue by sending us his medal picture entitled, "Christmastide," for our frontispiece this month. This beautiful picture has received many awards. It won a medal at the International Exposition at Brussels in 1896; it also was awarded a medal at Lille, France; and was accepted for the Exposition of the Royal Photographic Society at Great Britain in the same year. It won a medal in London also, in 1897, and it has been greatly admired wherever shown. The late H. P. Robinson, who is the father of modern Pictorial Photography, personally commended this picture very highly.

THE man who uses an ordinary camera with a four-by-five plate does not dream that he may take with it photographs of celestial objects such as comets and nebulæ. For those he thinks that great observatories, with complicated and costly apparatus are necessary. Alfred Rordame, who describes the process in *Popular Astronomy,* concedes that of two cameras, the one specially made for celestial photography by eminent opticians will produce the best results, yet he tells us that good pictures can be made with ordinary portrait-lenses, which nowadays may very often be purchased for a trifle at some of the old photographic studios throughout the country. We read:

"The apparatus I have used in celestical photography is of the simplest possible construction, consisting of a square box of wood, painted black outside as well as inside, to which the lens is securely fastened. This box is made in two sections, one sliding within the other, making it adjustable for focusing.

"It is no use trying to focus on the stars; the best way is to expose several plates, until the star-trails show as the finest lines. Most portrait-lenses are lacking in a flat field, and it becomes necessary to compromise on the roundness of the field and focus sharply at a little distance from the center; this will tend to make it sharper all over, at the expense of the center.

"The camera is securely bolted to the telescope and carries an ordinary four-by-five plateholder. The telescope is equatorially mounted, and is moved by a simple tangent screw. The eyepiece is provided with cross-wires, and when following a star, I put it slightly out of focus, so that it forms a disk, which may then be accurately bisected, and one of the wires is put parallel with the motion of the stars in the field of view.

"I am yet in doubt as to the advantage of backing the plates. The non-halation brand seems to give a foggy effect. All the negatives are intensified by whitening the plates in a solution of bichlorid of mercury and afterward immersing them in a dilute solution of aqua ammonia, which produces an intense black image. This treatment apparently doubles the time of exposure, and avoids fogging by the atmospheric sky-illumination, produced by the glare of our electric lights, which renders a prolonged exposure impossible, at least in the cities.



THE old saying, "that which we always see we never heed," would apply fairly well to the majority of photographers in connection with their dark-room and its appointments; or, perhaps, one might more truthfully say, "disappointments." The fact is that the average amateur worker seems to think any cupboard under the stairs will do for a darkroom; but if by chance he can get the use of the bathroom his contentment makes him forgetful of the fact that he may be, and very probably is, a considerable nuisance to others. In the case of the professional worker seldom indeed does the darkroom receive anything like the thought it deserves as regards both comforts and conveniences. This is certainly bad policy on the part of the employer, for nowadays no one will deny the fact that it is the employees whose comforts and conveniences are considered who turn out the best work, *i.e.*, best, not only in quality, but also quantity as well, and in these days surely time is money.



THE September issue of the official journal of the R.P.S., contains three articles to which attention may be drawn. Mr. E. Marriage points out that the thinner or more transparent the sensitive film coating on the glass the more light passes through it, which is likely to lead to halation by reflection from the back of the glass plate, but that this relatively transparent film is not so likely to produce the blur effect due to irradiation. The films used for the making of lantern slides usually are notably transparent, hence the need for backing these plates before exposure. He inclines to the opinion that halation is proportional to density, and doubts the practical value of any method of curing halation by modification of the developer. Mr. J. W. Dodgson continues his exceedingly interesting and important communication regarding the action of ammonium persulphate. The suggestion that the use of this salt used for "reducing"

a plate is accompanied by oxidation of the gelatine, is confirmed by experiment, whereof many interesting details are given. This oxidation may be brought about in the absence of metallic silver by the addition of silver sulphate to persulphate in the presence of gelatine accompanied by the evolution of carbon dioxide. Of the amount of persulphate present, about 1-20th only is used up in dissolving the metallic silver, while the rest appears to concern itself with acting on the gelatine. The oxidation of the gelatine takes place where there is most silver, *i.e.,* the highlights of the negative. Hence we can now understand the contrast-reducing action of this reducer. As this re-agent not only removes silver, but also gelatine, from our film, prolonged action of this reducer might, indeed would, be serious. The third item of noteworthy importance is a mathematical paper by Mr. Conrad Beck (communicated by Prof. Silvanus P. Thompson from the Proceedings of the Royal Society), wherein the author deals with the "pupil of an optical system with regard to perspective," and shows, both by theory and illustration, that two lenses of the same focal length, one an ordinary, the other a telephoto, from the same standpoint, give markedly different perspective effects.



THERE are few subjects which have fascinated the microscopist-photographer more than the question as to the precise nature of the markings on the frustule, test, or valve of a diatom. Again and again is the camera brought forward to support first one view and then another. Those interested in this evergreen topic should refer to this and last months' issues of *Knowledge,* wherein Mr. T. F. Smith discusses the subject. Whether his views be accepted or not, no one will hesitate to accord him unstinted praise for the conspicuously skilful photo-micrographs, which are eighteen in number, and range up to over 3,700 diameter magnification. In the current number of *Knowledge* Dr. Mees makes the suggestion of employing the mercury vapor lamp for printing platinotype paper. This hint may prove of value to those commercially engaged in this process during the dark days of the approaching season.



THE marine pictures appearing in our December and previous issues led our valued friend and subscriber, Mr. Wm. H. Ruf, Jr., to submit the print entitled, "Surf," reproduced on another page. We are afraid that our photo-engraver has been unable to reproduce all the fine detail of the original print. Mr. Ruf has exhibited this print in competitions amongst the camera clubs and has received an award in every exhibit.



WE beg to correct error in our December issue. In speaking of the picture "Winter," we refer to Mr. Harry A. Bodine whereas it should have been H. Oliver Bodine. Mr. Oliver Bodine formerly lived in Racine, Wis., where he has a host of friends.

Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

LOCAL REDUCTION OF LARGE BROMIDE PRINTS, BY FORESTIER.

To a 5 per cent. cupric sulphate solution is added 10 per cent. potassium carbonate solution until no further precipitate occurs. The precipitate is placed on a filter and washed several times. It is then stirred up in water and sufficient hydrochloric acid added until the liquid becomes clear. To the latter is then added ammonium hydroxide until the precipitate is re-dissolved. The bromide print to be locally reduced should be wet and placed face up on a glass plate and the solution applied with either a tuft of cotton or a small sponge. The solution to be used is made by taking one part of the above solution, one part of a 5 per cent. sodium thiosulphate solution and twenty parts of water. The reduction takes place rapidly and can be interrupted by placing the print in water. Should the solution act too rapidly it may be diluted still further.—*Photographische Industrie*, No. 2, 1911.

⁂ ⁂ ⁂

"Photographie als Lehr und Forschungsgegenstand, by Dr. R. Luther. Published by Wilhelm Knapp, Halle, a. S., Germany. Price, Mk., 1.0.

A paper read before the Technical High School in Dresden, Germany, on photography as a subject for investigation and giving as an example Daguerre's discovery that the spilled mercury in his cabinet was the cause of the image on his exposed plates. The author continues and speaks of the wide application and the wonderful work of photography in general.

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SODIUM PHOSPHATE AND SHELLAC PRINTING METHOD.

A rather old but forgotten printing method is recalled by the *Photo Revue*. The prepared paper keeps a long time and the tones range from reddish-brown to sepia without the use of gold.

The following two solutions should be made:

A

English.		Metric.
10 ozs.	Water	300 c.c.
3 drams	Borax	12.0 gms.
6¼ drams	Bleached shellac	25.0 gms.

B

10 ozs.	Water	300 c.c.
3 drams	Sodium phosphate	12.0 gms.
3¾ drams	Bleached shellac	15.0 gms.

The shellac should be powdered and then placed in a bottle with water and well shaken to remove soluble impurities. The water is then removed by filtration. The borax or sodium phosphate is then dissolved in the above quantity of water which is then heated to boiling. The shellac is now slowly added and the whole allowed to boil for two hours. The evaporated water must be replaced from time to time. The solution when cool, should be filtered to remove insoluble particles. For use the two solutions are mixed in varying proportions according to the character of the negative and the desired tone.

To begin with, one may use five parts of A and three parts of B. The paper is put in the above mixture for about twenty minutes and then hung up to dry in a place where there is a free circulation of air. To sensitize the paper it is floated on a ten per cent. solution of silver nitrate and again dried whereupon it is placed in the above shellac solution again. The paper must be deeply printed and without washing placed in a ten per cent. ammonium thiocyanate solution and then in a twenty-five per cent. sodium thiosulphate solution.

Finally the print is washed as usual. It is possible to prepare the paper with only one solution, using solution B, in which case the ammonium thiocyanate need not be used. If the backs of the finished prints are coated with a ten per cent. alcoholic shellac solution they are much improved. The above process is capable of several modifications and improvements. For instance, good results are obtained if to the above solutions A and B 7.0 gms. (105 grains) of gelatine are added. Before sensitizing, the paper must then first be floated on the followin solution:

3⅓ ozs.	Water	100 c.c.
30 grains	Ammonium chloride	2.0 gms.
30 grains	Magnesium lactate	2.0 gms.

The paper is then allowed to dry and sensitized in a twenty per cent. silver nitrate solution. The paper and prints are treated as in the other method. Working in large sizes the process is said to yield very fine results.

There are no special difficulties, but one must guard against air bells in the various solutions and the silver nitrate solution should be filtered occasionally.

—*Photographische Rundschau*, Vol. 25, No. 2.

⁂ ⁂ ⁂

THE CARE OF CHEMICALS, BY MAX FRANK.

In taking a trip through the laboratories of photographers one is met with great untidiness, not to say disorder. Scattered about are cloths damp with chemicals and bottles with unknown solutions, for they bear no labels, or the labels still clinging to them are undecipherably blurred. Substances sensitive to light are placed where strong sunlight can reach them and fixing solutions stand day and night in the same room where prints are toned, mounted and dried. And so I might continue indefinitely. Not only do we endanger our health, but that of our fellow workers, and there is ever present the risk of spoiling our work by getting hold of the wrong chemical or using unclean vessels. Every substance should be cared for according to its chemical character and below we give some advice as to the general care of chemicals.

Caustic substances act destructively on organic tissues, consequently attack the skin according to their property and producing spots and holes in the clothes. Internally these chemicals are, of course, very injurious. In a very dilute solution most chemicals are harmless to the skin. But even here one must be careful not to leave it too long in contact with the skin or clothes. Poisons, as is well known, are particularly dangerous and may often imperil life. One should guard carefully that not even a trace enters the human body, either in the form of a gas, liquid or solid. If such substances are used the head or mouth should be held away from the vessel, if possible the work in that case should be conducted in the open air. If poisonous chemicals are spilled no time should be lost to clean them up so that they are not transformed into dust on drying. Certain poisons like mercuric chloride in very dilute solution, act only internally but upon wounds have no serious action. Other substances like potassium bichromate, which is used in carbon and gum work, is bad for the skin and especially cuts and wounds. Some chemicals are inflammable and they explode when brought near a flame or open fire. A harmless but important property of many chemicals is their sensitiveness to light. These change their chemical character more or less through the light action. Upon this fact is based the whole photographic process. Volatile substances are those which at ordinary temperature quickly evaporate or disappear when in contact with the air. Other chemicals have the property of absorbing moisture from the air and finally liquefy or they may lose their water of crystalization and fall to a dry powder. Some substances change their chemical nature in addition to drying out. Often this takes place only in a saturated solution. The preservation of caustic, poisonous, inflammable, efflorescent and other changeable chemicals should be kept in well-stoppered containers and not in paper or pasteboard. Where the substances are particularly dangerous they should be provided with a label. Dangerous or poisonous chemicals should not be left where children or other irresponsible persons may have access, to prevent accidents, not only from lawful grounds but also for moral reasons. Substances which change when in contact with

air should be put in glass vessels stoppered with glass stoppers and not with corks. To guard developers from contact with air where the bottle is too large to be filled with the solution glass balls or marbles may be added to raise the level of the liquid until the bottle is filled. Chemicals sensitive to light should be kept if possible in the dark or in brown or yellow glass vessels. Even when dealing with inert substances, it is always better to keep them in closed containers. Every vessel should bear a label describing the contents and in the case of mixtures, the composition and date should be added, especially with strong solutions. To prevent water or the solution from washing away the inscription, celluloid varnish is suggested. Exceedingly caustic are: hydrochloric, acetic, hydrofluoric, nitric and sulphuric acids; phenol, ferric chloride, and silver nitrate; sodium and potassium and ammonium hydroxides. Among the poisons are: potassium dichromate, cyanide and ferricyanide, lead salts, oxalic acid and oxalates, "pyro," mercuric chloride, silver and uranium nitrates, formalin and the above mentioned acids. Inflammable are: alcohol, ether, acetone, benzine, benzole, turpentine, collodion and celluloid solution. Solids most sensitive to light are: silver bromide, iodide and chloride. Among the solutions sensitive to light are: gold and mercuric chlorides, potassium ferricyanide, ferric-oxalate and permanganate.

The volatile liquids are: alcohol, ether, ammonium hydroxide, benzine, benzole, hydrofluoric acid, collodion and turpentine. Hygroscopic substances are: alcohol, uranium nitrate, citric and acetic acids, potassium cyanide and carbonate, caustic soda and potash, ammonium and potassium thiocyanates, gold and ferric chlorides. Efflorescent substances are: cupric and ferrous sulphates, sodium carbonate and sulphite, oxalic acid. Substances which change their chemical composition on contact with the air are: sodium hydroxide and sulphite, potassium cyanide, metabisulphite and hydroxide. Of course the above is not intended to be a complete list, but it includes the more important compounds used in photography. Where any doubt exists as to the property of any chemical, inquiry should be made from the seller.

—*Photographisches Wochenblatt,* Vol. 35, No. 13.

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PROTECTION AGAINST CHEMICALS.

In working with poisonous or caustic chemicals which are liable to attack the skin it is often desirable to protect the hands or fingers. While rubber gloves and fingers will act as a protection they at the same time prevent tactile sensibility. An ointment-like coating does not possess the latter disadvantage and may therefor at times have the preference. The following paste is said to have been successfully used.

English.		Metric.
	Solution 1.	
1⅔ ozs.	Distilled Water	50 c.c.
2⅔ ozs.	Glycerine	80 c.c.
15 grains	Agar Agar	1.0 gm.
	Solution 2.	
2⅔ ozs.	Distilled Water	80 c.c.
45 grains	Sodium Carbonate	3.0 gms.
75 grains	Stearine	5.0 gms.
75 grains	Table Oil .	5.0 gms

Solution 1 is obtained in the cold by allowing the mixture to stand for several days and frequently stirring and finally straining through cloth. Solution 2 is made by placing the ingredients in a pot and putting the same on a water bath (double boiler for instance), heating and stirring until the chemical reaction has taken place and all is in solution. The two solutions are then well mixed either in a bottle or suitable vessel. On mixing, a foaming white mass results; it is then allowed to rest for several days. The air bubbles are then removed and the mixture placed in a closed jar. This paste renders the skin very smooth and soft and is at least as good as other mediums used for the same purpose.

—*Deutsche Photographen Zeitung,* Vol 35, No. 28.



Discoveries

[All readers of The Photographic Times are invited to contribute to this Department reports of their discoveries for which we will allow One Year's Subscription, on publication of the contribution.—The Editors.]

Who, among those who have attempted at one time or another to manipulate an unruly tripod upon a polished floor, has not wished that that particular piece of photographic apparatus had no such thing as legs? I, myself, had many mishaps, especially during the making of interiors and home-portraits; after many ineffectual makeshift attempts at eliminating the everlasting slips (which, by the way, usually took place at exactly the wrong moment), I had a happy inspiration and immediately acted upon it much to my own satisfaction and relief.

Having an old pair of heavy *rubber* hunting shoes at hand, I detached the thick rubber heels, leveled off the side that had been cemented to the shoe proper by trimming the curved edge (formed by the shoe), with a knife, and cut a small hole in the opposite side (worn smooth by wear), for the insertion of the tripod spikes. I tried it out and the slipping was eliminated as if by magic. It was practically impossible to start the pieces of rubber even though the tripod be given a careless and quite forceful kick (as often happens). The weight of the heels made them quite rigid, much more so than the "piece of rubber" so often recommended and so often unsuccessful.

Another suggestion occurs to me. I recommend using the side of the heel that came in contact with the shoe because, having been cemented, it was quite rough and allowed a firmer hold upon the floor.

H. W. Lawton.

⁂ ⁂ ⁂

When using a washing box.

If you have the stream of water running directly into the outlet of the funnel, a larger stream will be allowed to enter, and so wash the plates in a shorter time.

Ralph Newman.

Those who live in large cities where such a thing is found will find the pink sporting extra invaluable for wrapping up boxes of plates that have been opened. The pink color acts on the same principle as a dark-room lamp and keeps out the light rays better than ordinary paper.

If plates are bound with the red passe-partout paper it will not only protect the edge of the film but will also furnish a permanent border for printing. This binding comes in rolls 10 yards long and ⅞ of an inch wide and is very cheap. It can be creased so as to leave any width border.

D. K. Baldwin.

⁂ ⁂ ⁂

One sometimes wishes to make but one or two titled prints from a negative, and does not want to go to the trouble of titling the negative, or, perhaps does not want the negative titled. The following method is easy and simple, and takes but little time, as the titling does not have to be made reversed, as it does on a negative.

Take a piece of transparent, or onion skin paper and print the title upon it, cut to the desired size, and place between the negative and paper in the printing frame in the place in which the title is desired. A red ink, or an India ink is very good for the printing.

Edward A. Man.

⁂ ⁂ ⁂

When rocking a tray.

You will find it easy if you slip a thin strip of wood beneath it, near one end. Then all that is necessary is to press down on this end to rock it one way, and release it to rock it in the other direction.

Ralph Newman.

Items of Interest

To the Editor of The Photographic Times:

Dear Sir:

I have been looking over the December number of your magazine and I noticed a little article about X-ray work.

I write to call the attention of some of your advertisers to a condition of things that I do not think ought to exist and which perhaps they are not thoroughly aware of.

It is this: we cannot get an American manufactured X-ray plate any way comparable with the imported ones. I speak advisedly for I have tried every plate on the market. The American plates all give too thin an image.

Now at the German Hospital we take about 2,400 pictures a year on plates from 8 x 10 to 14 x 17, so as this is only one hospital out of the thousands in the United States, to say nothing of the numberless radiographers who operate in their private offices, the field is one well worth looking after.

I may say that the plate we have found most suitable is not a German but an English one. Of course we would rather use plates of American manufacture as apart from the greater cost (these plates are considerably more expensive than the domestic ones), there is sometimes delay in getting our supplies when we have to fall back on the home kind to the detriment of our results. Now if any of your manufacturing readers care to tackle this problem I would be glad to co-operate with them to the best of my ability.

If they care to send me sample plates with which to make comparative tests, for which I have every facility, I would be pleased to make them and send them the resulting skiagrams.

Yours truly,

W. Conyers Herring, M.D.

Radiographer-Adjoint,

German Hospital, N. Y.

BRILLIANT FLASH POWDER.

A formula for a flash powder, which is stated to give a light of extremely high actinic value, is given by M. Fabre, professor of the Toulouse Faculty of Science, as follows:

A.—Antimony sulphide ..... 15 gr.
B.—Magnesium powder ..... 45 gr.
C.—Pulverized pot. chlorate..... 90 gr.

Powders of these weights are wrapped up separately, and before use one of each is taken, and the three carefully mixed together. The powder is then wrapped up in thin tissue paper, together with a little gun-cotton, by which it is ignited in the usual way. The above quantities are sufficient for a very big flash, and for ordinary work at home only about a quarter or one-third the amount should be used.

* * *

The largest photographic negative ever taken of a sitter was 64 inches by 33 inches, of practically life size. It was the work of a Dublin (Ireland), firm.

* * *

TONING TRANSPARENCIES.

Mr. Biss recently showed some experimental results in connection with the toning of a transparency to a rich deep blue, with pure high lights. The formula he quoted was as follows: (1) 10 per cent. ferric chloride, 75 minims; 10 per cent. oxalic acid, 40 minims; glacial acetic acid, 15 minims; potassium ferricyanide, 3 grains; water, 2 ounces. In this connection it may be convenient to quote two formulas which I have used with satisfaction. (2) Water, 4 ounces; ammonio-citrate of iron, 10 grains; nitric acid, 5 minims; potassium ferricyanide, 10 grains. This gives a Prussian blue color. (3) Water, 4 ounces; ferric oxalate, 10 grains; nitric acid, 5 minims; potassium ferricyanide, 5 grains. This gives a blue with a somewhat greenish tinge. (There are two, viz., the soluble and the insoluble, forms of Prussian blue).

Among the Camera Clubs

[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—The Editors.]

TORONTO CAMERA CLUB, TORONTO, CAN.

The Toronto Camera Club, of Toronto, Canada, will hold its Ninth Salon and Twenty-first Annual Exhibition from Mar. 25th to 30th, inclusive, 1912, at its exhibition rooms, No. 2 Gould street. The following are their rules and regulations:

Each exhibitor will be furnished with the catalogue issued by the club, which will be official notification of acceptance or rejection of the works submitted to the Jury of Selection.

All pictures must be mounted, but not framed.

Each picture must be the entire work of the exhibitor.

Each exhibitor must place a nom de plume, a title, and a number on the back of each mount, sending at the same time, in a separate envelope, his name and address with nom de plume, so that his prints may be identified by the secretary-treasurer.

Any number of prints may be submitted, but only such as, in the opinion of the Jury of Selection, show distinct artistic merit, will be selected.

A gold, silver, and bronze medal, or plaques, will be awarded by the Jury of Selection to the three best prints. Not more than one medal will be awarded to one exhibitor. The prints receiving medals will become the property of the club.

Pictures must be delivered, charges prepaid, to the Secretary, Toronto Camera Club, No. 2 Gould street, Toronto, Canada, and must reach club rooms not later than Thursday, March 14th, 1912.

All exhibits from points outside of Canada must be sent by post

All exhibits will be repacked and returned to exhibitors as soon as practicable after the close of the exhibition. Special care will be taken of all exhibits, but responsibility for loss or damage cannot be assumed by the club.

Edward Y. Spurr,
Secretary-Treasurer.

No. 2 Gould street,
Toronto, Canada.

☆ ☆ ☆

ILLINOIS COLLEGE OF PHOTOGRAPHY, EFFINGHAM, ILL.

The college is to have a college paper, *The Bissellonian.* It has been established by the students of both colleges and is under the management of a board of editors chosen from the student body. The engravings, designs, and illustrations will be students' work, and they confidently expect to excel any college paper in the country in these features. It will be issued monthly, the first number appearing in December, and will sell for five cents per copy.

☆ ☆ ☆

NEWARK CAMERA CLUB, NEWARK, N. J.

Mr. W. S. Norris, secretary of this enterprising camera club, takes some exception to the article which appeared in the Times some time ago in connection with his club. He writes to say that what they have been contending for is a much different method of judging the slides of the Lantern Slide Interchange, from the one which is now in vogue. The Newark Camera Club has nothing to complain of so far as proper recognizance is concerned, but they would like to see a different method for judging employed.

Photographic Reviews

"THE ROMANCE OF THE SEASONS."

The old saw about truth being "stranger than fiction" has been proved to be near the truth more than once by aid of the camera. But seldom has the story been told in a more pleasing way than it is in Mr. F. Martin-Duncan's new book, called "The Romance of the Seasons" (Chapman and Hall, 6s). The author exemplifies the very happy combination of an enthusiastic naturalist and expert photographer. He is a favorite lecturer at the R. P. S. and camera club. The book deals with the romantic stories of many wayside plants, birds, insects, and small wild animals. It is well illustrated by fifty reproductions of the author's original photographs, and is largely free from technical terms. It would be an excellent gift to any boy or girl interested in natural history, and especially so if the young person happened to possess a camera. The book would stimulate work and observation along very fascinating lines.

* * *

THE AMERICAN ANNUAL OF PHOTOGRAPHY FOR 1912.

We have received from George Murphy, Inc., General Sales Agents for the American *Annual of Photography,* the 1912 volume. This welcome book, now in its twenty-sixth volume, is this year edited by Mr. Percy Y. Howe, and contains the usual number of articles and illustrations, 32 plates being in color. It also contains very valuable tables and complete lists of the American Photographic Societies, giving full particulars of each society, and a complete index which gives immediate reference to any desirable picture or article in the volume. The book sells, as heretofore, for 75 cents in paper cover, and $1.25 for cloth bound, postage extra. We shall be glad to supply our readers with the book on receipt of price.

THE "WELCOME" PHOTOGRAPHIC EXPOSURE RECORD AND DIARY 1912.

Whosoever desires, in the least possible space of time to acquire a working familiarity with the principles and practice of modern photography may be confidently recommended to this little volume.

The *Wellcome* Exposure Record is packed as full of photographic wisdom as an egg is full of meat, and its directions and observations on such matters as exposure, development, intensification and all the other fascinating processes which go to the making of pictures, are so simple and concise that no one need go astray.

Three separate editions are published, specially adapted for the Northern Hemisphere and Tropics, the Southern Hemisphere and Tropics, and the United States. When purchasing care should be taken to specify which edition is required. The *Wellcome* Exposure Record may be obtained from all photographic dealers and booksellers, and at the railway bookstalls. Price in the United States, 50 cents.

* * *

The *British Journal* Photographic Almanac for 1911 is out, and, as usual, is packed full of useful things for the practical photographer. This valuable photographic work has become standard, not only throughout the British Empire; but every where the English Language is spoken. The present edition is 25,000 copies, and it will be entirely sold out, as usual. The price in paper covers is 50 cents per copy, cloth bound $1.00; postage extra. George Murphy, Inc., are the American trade agents.

Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

We hear, with pleasure, frequent reports from our readers of the satisfaction they have in using the Seneca Camera Mfg. Company's apparatus. The "Competitor" View Camera seems to be meeting with particular favor. It is a moderate priced instrument, and practical for all kinds of photographic work, whether indoors or out. It is light in weight, compact, and yet very strong and rigid. We suggest that those of our readers who have not yet seen this camera, write to Department "D," Seneca Camera Mfg. Co., Rochester, N. Y., and ascertain the details. The low price is a great surprise to all. Their new, improved "Seneca" View Camera is an instrument which view artists and the profession generally have come to regard as standard throughout the photographic world. It possesses distinguishing characteristics which give it unique value. Write for particulars about it also while you are about it.

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Schering & Glatz have put upon the market a very convenient soap for removing all developer stains, under the trade name of Stiefel Pumice Stone Soap. One original carton of three large cakes, costs only 25 cents, postage 15 cents extra.

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The Miehle Printing Press & Mfg. Co., announce the death of Mr. James O. Campbell, December 6th, 1911, at his home in Morgan Park, Chicago. Mr. Campbell had been connected with the Miehle Printing Press & Mfg. Co., as a salesman, with headquarters in St. Louis, for many years, and was considered by them, and by the trade in general, as one of the most efficient and reliable men on the road. The Photographic Times Printing Plant is equipped with Miehle presses.

The Wollensak Optical Co. has issued a folder on the Verito Lens, which gives four magnificent reproductions from untouched Verito negatives. These pictures are so good that they certainly seem to bear out the statement so confidently made by the manufacturers, that Verito will more than pay for itself the first week that a display is made of the prints from the negatives by this wonderful objective. The same company issues a convenient little book of Japanese hand-made tissue for cleaning Wollensak and other photographic lenses.

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Bausch & Lomb Optical Co ask us to announce that the name of Mrs. Ethel Grant Scott, who made the negative of the child and the Christmas Tree, which illustrated their ad in the December issue of this journal, was inadvertently omitted.

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Bausch & Lomb Optical Co. want photographs for use in their publications.

They are ready to buy negatives which illustrate the quality and uses of Tessars Ic and IIb, Convertible Protars VIIa, Protar Wide Angle lenses, Telephoto and new Ray Filters.

They prefer speed pictures, hunting and fishing scenes, and interior portraits and views.

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A SIMPLIFIED DEVELOPING AGENT FOR PAPERS.

Tozol is the trade name of a new and simplified developing agent, placed on the market by the Eastman Kodak Co., for use with developing papers. We have tried this agent and it should rapidly gain favor with those amateurs who prepare their own developing solutions, because it is economical and convenient to use. The results obtained by the use of Tozol are equal to those of any combination of developing

agents on the market, while the compounding of the formula is very simple.

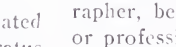
To make a stock solution, just add the required amount of sodas, bromide and wood alcohol to an ounce of Tozol, and dilute as instructed for the various developing papers.

The action of this developer is strong and vigorous, yet the resulting prints are rich in tone value, retaining all the delicate detail and gradation of the negative.

The introduction of this new developing agent is only another indication of the Kodak idea of progress in things photographic. Quality and simplicity are alalways the first considerations, and the quality always insures the dependability of the Kodak products. The prices are as follows: One ounce bottle, 20 cents; one-quarter pound bottle, 70 cents; one-half pound bottle, $1.30; one pound bottle, $2.50.



We have the very attractively illustrated catalog No. 2 of photographic apparatus and supplies, issued by the *Photo Craft* Shop, of Racine, Wisconsin. This enterprising company handles Eastman cameras exclusively, and carries a full line of Eastman specialities.



THE SENECA CAMERA CO.

Within the past few weeks the writer had the pleasure of spending part of a day with the Seneca Camera Manufacturing Co., of Rochester, N. Y. Some time was spent in reminiscing back years ago to the time Seneca Cameras were first made in a small one-room building.

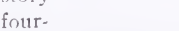
I ascertained some very surprising facts and followed with great interest their growth and increase in factory space and output. From this very meagre beginning, the Seneca people moved into a three-story building, a few years later into a four-story and basement building, and now they enjoy the advantages of a large, light and airy six or seven story building in the very heart of the manufacturing center of the city.

For years they have been holding Seneca Cameras foremost in mechanical improvement; they are photographic instruments designed for great speed, and calculated for the irregularities of picture-making; they bear the full sunlight of scrutiny, and stand forth to-day as masterpieces of unequaled attainments, Master minds in camera lore have given their ripest thoughts to designing, harmonizing and improving these instruments.

From the first, Seneca Cameras have represented the highest type of photographic development. In grace and perfection of design; in strength and rigidity with lightness; in harmonious adjustment throughout; in masterly simplicity of construction; in durability and adaptability, Seneca Cameras mark the highest point of perfection to which photographic instruments have as yet been brought. New ideas suggested by the ever-advancing knowledge of the art have been crystallized and developed to their fullest extent in superb cameras, thus making them wider in range, greater in value, more perfect in attainment for the work of the photographer, be he beginner, advanced amateur, or professional.

Seneca Cameras are made in all styles and sizes, designed for pleasurable and profitable photography. The Seneca Camera Co. study the needs of the photographer and make a camera for every class of use. The simplest instrument works best in the hands of the beginner; the landscape artist wants a substantial view camera; while the advanced amateur, artist and scientist will wish to possess one of the well-rounded, ever-available equipments to be found in the advanced line of Senecas.

The beautiful Seneca Camera Catalog listing one hundred and eighty styles of cameras is distributed free of charge and may be had by anyone interested in photography by simply addressing the Seneca Camera Mfg. Co., Rochester, N. Y. and mentioning this publication.



In a well written and thoroughly practical article entitled, "Photographic Reagents," which appeared in *Camera Craft* for November, Mr. Philip Edelman has the following to say about the re-agent Duratol. "Glossy papers present a problem of their own. It is extremely difficult to obtain fine, clear prints on them, unless some particular restrainer is used in the solution. The restrainer usually employed is potas-

sium iodide. I was pleased recently to find one developer, which gave clean prints on glossy paper without a resttrainer. This re-agent is Duratol, but recently introduced. Its possibilities are great because of its non-fogging properties, its keeping qualities, its being non-poisonous, its economy, and its rapidity.

"It seems to me that the tank method of developing plates and films can be profitably modified and used for prints. Indeed, in some tests which I made, very weakly diluted Duratol solution was used and so regulated that the print took three minutes to develop. Besides the economy, a much larger number of prints can be developed in a given time, because new prints can be exposed while the others are developing. Metol-hydroquinone solution was found unsatisfactory when diluted for the same purpose.

"As regards tank development for films and plates, there should no longer be any doubt as to its advantages. However, I think that it is a mistake to use old pyro solution for this purpose, because it invariably discolors during the twenty minutes, and stains the negatives. It seems to me that a solution incorporating a stable re-agent, such as Duratol, or even Erogen, or Glycin, or a combination of these, would prove much more satisfactory."

And he gives the following formula for a Duratol developer:

Sodium sulphate (dry), one teaspoonful, 120 grains; sodium carbonate (crystals), one teaspoonful, 120 grains; hydroquinone, one teaspoonful, 40 grains; metol or satrapol, one teaspoonful, 40 grains; duratol, one teaspoonful, 40 grains.

Messrs Shering & Glatz, the importers of Duratol and other well known developing re-agents, referring to this article, write us that they have recently been conducting a number of experiments, with the result that they find the use of potassium carbonate, instead of soda carbonate, not only avoids the precipitation sometimes noticed in Duratol solutions, but also enhances their developing energy.

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The services of translators of a variety of languages are required to interpret the daily mail of the C. P. Goerz American Optical Company. But a Japanese correspondent, with the kind intention, no doubt, of saving the company the trouble of translating his epistle, has succeeded in baffling them. The following glowing testimonial was recently received.

N.....Japan,
Nov. 15, 1911.

MESSARS. C. P. GOERZ CO.

DEAR SIR.—I beg yours company letter with wish sending Goerz company more and more prosperity prime. I to make sick be sad Goerz company, to manufactured by Series 1c Sintor and III dagor all lenses and anchuts, tenax, ango all camera how beautifur minuteness copyieding Sample photograph book and besides you co, to trust in good lens and camera catalogue and Exactly in a price list sending confer fast.

I dear Goerz company prophecy Engagement to will.

Dr. B.....

Just what meaning the Doctor wishes to convey, in addition to his holiday greeting, is in doubt; but he will receive by the next mail sample photographs showing the "beautifur minuteness' to which he refers.

The Photographic Times

SUBSCRIPTION RATES one dollar and fifty cents a year, payable in advance. Foreign Postage 50 cents, Canadian Postage 25 cents. Single copies 15 cents. Subscriptions to the *Photographic Times* received by all dealers in photographic materials in this and foreign countries, also the American News Co. and all its branches.

POSTAGE IS PREPAID by the publishers for all subscriptions in the United States, Hawaiian Islands, Philippine Islands, Guam, Porto Rico, Tutuila, Samoa, Shanghai, Canal Zone, Cuba and Mexico. For all other countries in Postal Union, except Canada, add 50 cents for postage. Canadian postage 25 cents.

CHANGE OF ADDRESS.—When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent one week before the change is to take effect.

DISCONTINUANCES.—If a subscriber wishes his copy of the magazine continued at the expiration of his subscription, notice to that effect should be sent. Otherwise it is assumed that a discontinuance of the subscription is desired.

HOW TO REMIT.—Remittances should be sent by Draft on New York, Express Order, or Money Order, payable to order of *The Photographic Times Publishing Association*. Cash should be sent in registered letter.

CONTRIBUTIONS.—All literary contributions, correspondence, "Queries," etc., should be addressed to *The Editor;* all advertising matter to the Advertising Manager.

LETTERS should be addressed:

THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION,
135 West 14th Street, New York.

Classified Advertisements

Advertisements for insertion under this heading will be charged for at the rate of 25c a line, about eight words to the line. Cash must accompany copy in all cases. Copy for advertisements must be received at office one week in advance of the day of publication, which is the first of each month. Advertisers receive a copy of the journal free to certify the correctness of the insertion.

RATES FOR DISPLAY ADVERTISING SENT ON APPLICATION.

ROCK BOTTOM PRICES

ON CAMERAS, LENSES AND PHOTOGRAPHIC SUPPLIES

Why pay exhorbitant prices for your photographic accessories when you can obtain from us everything you need in your photographic work—whether amateur or professional—at greatly reduced prices.

New BARGAIN LIST just off press. Send for copy to-day

New York Camera Exchange 109 Fulton Street, N. Y.

FOR SALE

3¼ x 4¼ Goerz Anschutz, Dagor lens, 2 holders, like new, $40.00. W. HANSON, 272 Howard Street, Detroit, Mich.

FOR SALE—

Seneca Folding Camera, No. 4, 4x5, cost $14.00
Baby Al Vista, No. 2, cost..... 5.00
5D Al Vista for panoram pictures up to 5x16, complete with carrying case, developing tray, and printing frame, cost..... 42.00
Seneca Sr. Box Camera, 4x5, cost..... 4.00
Buster Brown No. 3, 2¼x3¼, cost..... 3.50
Vote-Berger Printing Machine, for 5x7, cost..... 18.75

Must be sold soon—25% discount for thirty days. Practically new goods. None used more than two or three times.

ROB'T F. WITTBECKER, LANSING, IOWA.



WINTER EXPOSURES

Get them right. Save plates and films. Wynne's $2.50 Exposure Meter sent postpaid upon receipt of $2.00. Bargain List No. 122 ready. Send stamp.

Willoughby & A Square Deal
814 BROADWAY, N. Y.

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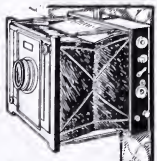
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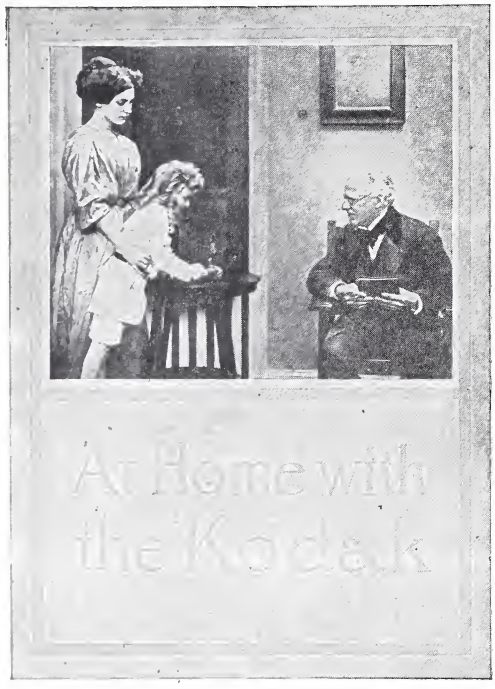
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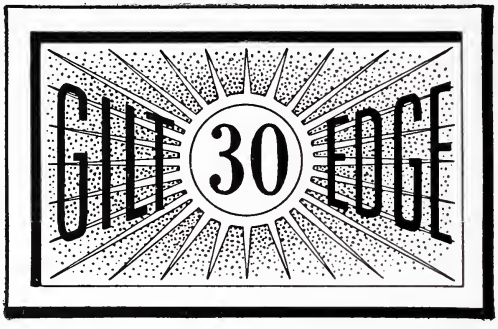


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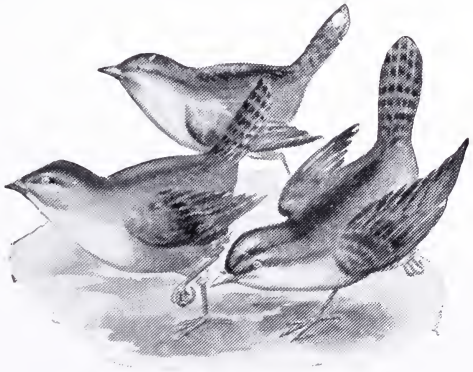
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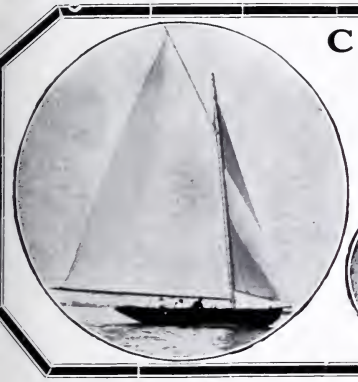
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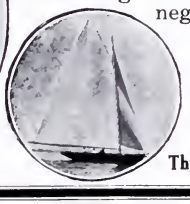
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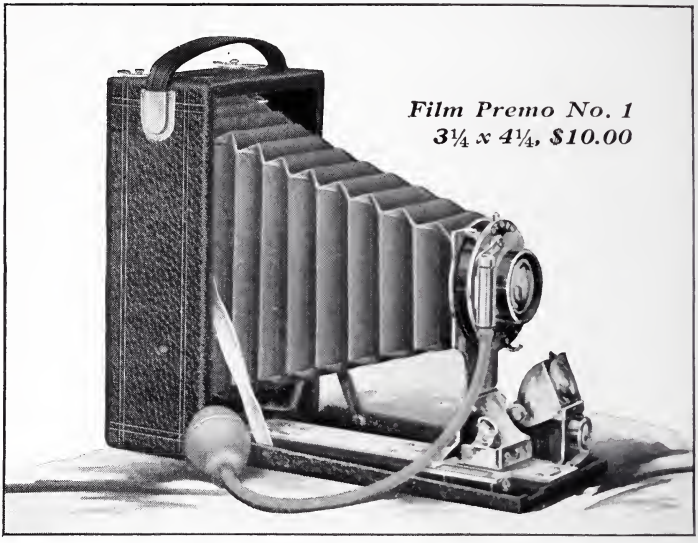
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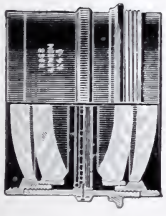
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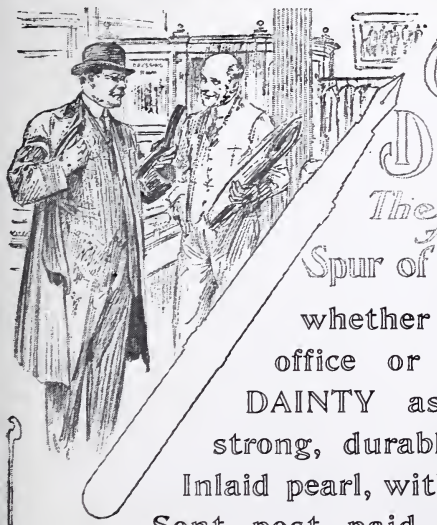
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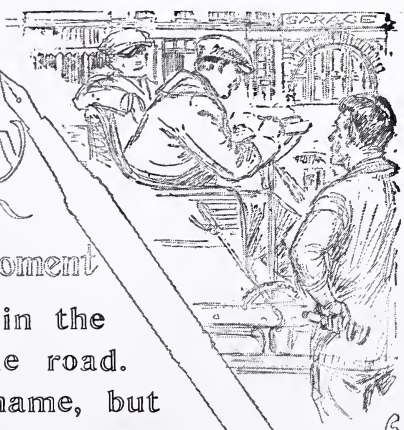
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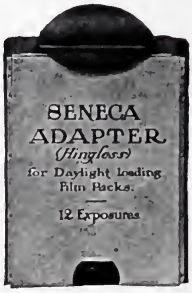
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The Photographic Times



WINTER SCENE, BETHLEHEM, N. H. *A. Garland Hall.*

An Independent Illustrated Monthly Magazine Devoted to the Interests of Pictorial and Scientific Photography

THE PHOTOGRAPHIC TIMES PUBLISHING ASSOC'N
135 WEST FOURTEENTH STREET . NEW YORK CITY

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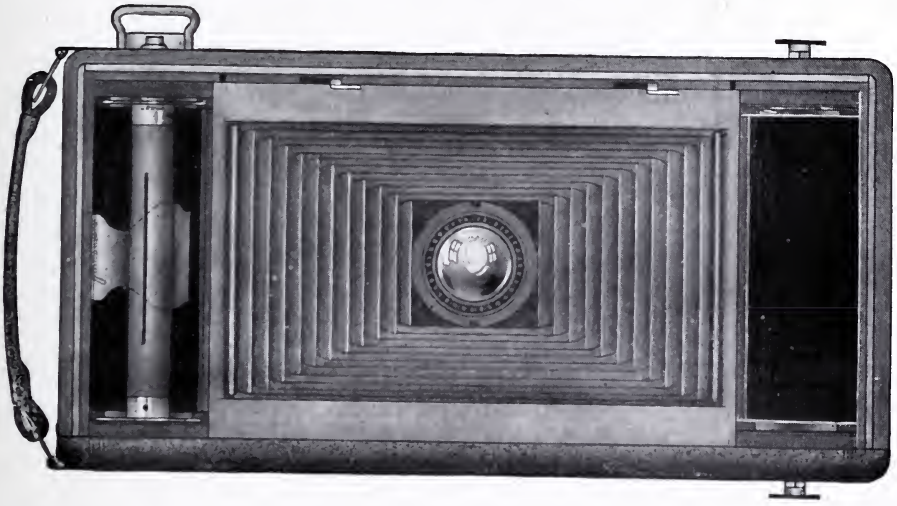
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THE OLD BIRCH TREE IN WINTER *A. Garland Hall*

The Photographic Times

VOLUME XLIV FEBRUARY, 1912 NUMBER 2



SOME MORE WINTER PICTURES

BY W. I. LINCOLN ADAMS.

With Illustrations by Miss Adams, Dr. Willis Clarke Noble and A. Garland Hall.

OUR good friend and subscriber, Dr. Willis Clarke Noble, of Montclair, N. J., has sent us some more examples of artistic work with his camera, which we are very glad to be able to reproduce for the benefit of our readers.

The pictures which he sent us, with a letter of explanation, are all snow scenes, made near his own home in Montclair. The first one, "Fairy Frost Work," was selected exactly opposite Dr. Noble's office on Fullerton avenue, and is an excellent example of snow and frost work in connection with interesting tree forms in winter. It was made at about ten o'clock on the morning of December 4th, immediately following a snow storm, and before the snow had a chance to melt and become soiled or marred. The morning was rather cloudy, which accounts for the softness of the picture. The plate used was a Cramer-Iso, medium speed, used with a ray filter. The exposure was one second with a Turner-Reich Lens, series 2, *f*32. The print was made on Cyko Contrast Studio Developing Paper.

No. 2, "Winter's Magic," is a view on Roosevelt Place, also in Montclair, N. J., not far from the subject of the first picture, and was made at about the same time as No. 1, and under similar circumstances. The lens, plate and paper were also the same.

No. 3, "Sun and Snow," is a picturesque snow scene made on Llewellyn Road directly opposite the residence of the managing editor of this magazine. The same plate and lens were used as in the case of No. 1 and No. 2, but the picture was made later in the day, when the sun was out, and the exposure was reduced to a half second, and the diaphragm was *f*32. This picture presents the pleasing contrasts obtainable when bright sunlight illumines a snow-covered landscape.



FAIRY FROST WORK *Willis Clarke Noble, M. D.*

The initial letter illustration is by Miss Adams, daughter of the editor, and shows his winter residence on Llewellyn Road, Montclair, N. J. The tailpiece is also by Miss Adams, and shows the view from the house looking in an opposite direction, toward the standpoint in the first picture. The snow-covered hedge in the foreground is the same in both pictures.

The cover illustration, "Pointed Firs," is from a negative by Mr. A. Garland Hall, a successful professional photographer of Littleton, N. H. Mr. Hall is quite as skilful with his landscape as he is with portraits, as will be seen by an examination of the landscape examples of his camera, which embellish this number of our magazine. The cover illustration is a typical winter scene in Northern New Hampshire, showing the pointed firs and spruces heavily laden with the dry, fleecy, snow of this picturesque country. This scene is on the road from Littleton to Bethlehem, and is appropriately cold and wintry.

The frontispiece, "The Old Birch in Winter," which is also by Mr. Hall, shows an interesting growth of a fine, old birch tree which has split a huge boulder asunder, by growing in a fissure of the original rock. The writer remembers this particular tree when it was a mere sapling, and before the rock was riven as it is now shown to be in the picture. This scene is on the famous Franconia Drive from Littleton to Franconia Valley.



FORTY BELOW ZERO — *A. Garland Hall*

The half page illustration, "Forty Below Zero," by Mr. Hall is a scene on the Ammonoosuc River, showing the village of Littleton in the extreme distance. The contrast between the bright sun on the snow in the foreground, and the heavy dark green foliage of the pines and spruces in the middle distance, is very impressive and typical of the winter landscape in New Hampshire.



The Earth was brown and bare,
An hour ago;
But now the crystal wonder
Of the snow
Lies smooth and deep, unspotted
And unsoiled,—
Unscarred as yet, its whiteness
All unspoiled.
It is a fairy blanket,
By unseen
And magic hands outspread
To catch the sheen.
That falls—like pollen from
The rose in June—
Down from that golden rose,
The full-orbed moon.
Ideal forms and colors
Shift and play;
They melt and vanish in
Some magic way.
To wander forth at night,
In moon and snow;
Sets free the spirit, bound,
That yearns to go
A long, long way from Earth;
And fills the heart
With comfort-bringing songs
That ease its smart.

PHOTOGRAPHING THE SPORTS OF WINTER

BY PHIL M. RILEY.



VERY few amateur photographers use their camera as much during the months of ice and snow as in summer, and when they do brush the dust off them it is usually to try a few hasty shots at the decorative effects of a particularly heavy fall of snow. The lover of genre and of motion work, however, will find subjects a plenty in winter as attractive pictorially and fully as interesting as those characteristic of summer. All of the outdoor winter sports, such as tobogganing, coasting, skating, skiing, snow shoeing, ice boating and sleighing, furnish a wide range of subjects for lively and beautiful camera work. It is good healthful sport to make the exposures, and there is a ready sale for really good photographs of this nature, so that the work may be made self-supporting. This sort of specialized photography is not overrun as are many others, and magazine and other publishers are usually glad to buy winter sport pictures which are better than the average.

Rapid movement whether of persons, animals, or objects, characterizes this work, and suitable equipment is essential; moreover, the camerist must be perfectly familiar with his equipment, for brain, eye, and hand must be in perfect accord ready for quick intelligent service. The requirements of equipment may be briefly summed up thus: First, a lens which will admit enough light during exposure to form a developable image with enough shadow detail; second, a shutter which will give an exposure short enough to arrest the motion of the subject; and third, a plate which with normal development will yield sufficient printing density with detail and fair gradation in all portions of the negative.

An anastigmat lens is the only really satisfactory one to use in photographing sports, as it is only under the most favorable conditions that a rectilinear will prove fast enough. In fact, the lens should work at *f*4.5 if one can afford it, and should not be slower than *f*6.8. Even on dull days good photographic work of the ordinary sort can be made with such an equipment, and detail and gradation will be more in evidence in high speed pictures because of the more nearly correct exposure.

To avoid perceptible blur in a photograph 1/100 of an inch is the extreme movement of the image permissible on the negative. This necessitates very



WINTER'S MAGIC — *Willis Clarke Noble, M. D.*

rapid exposures, and even with the fastest lenses it is difficult to admit enough light to the plate to produce a developable image. For this reason, shutter efficiency is of the greatest importance.

Of the two general types of shutters now in use, one works across the lens and the other across the focal plane. There are several types of lens shutters, with each of which a portion of the exposure period is consumed by the opening and closing of the leaves, thus greatly reducing efficiency. In fact, the leaves may be considered as acting like diaphragms of varying size, and only at the instant of full opening do they admit all the light which the lens is capable of transmitting. Focal plane shutters, however, do not so obstruct the passage of light. The slit passes over the plate at uniform speed, and as it remains constant in size the plate receives all the light which the lens is capable of transmitting while uncovered by the slit. The actual ratio of efficiency of these two types of shutters is about one to three in favor of the focal plane, in other words, a focal plane exposure of 1/75 will give as fully timed a negative as 1/25 with a lens shutter.

For high speed work of every sort cameras of the reflecting type are preferable, because one can watch the subject up to the minute of exposure in the hood, where a brilliant upright image the size of the final photograph is seen. This enables the photographer to keep a moving object well within his field of view and sharply focused until the best instant for an exposure. Uncertainty is obviated to a very large extent and a large proportion of successes assured. Film packs which are loaded in daylight can be used in this type of camera, and for those who prefer roll film which can be developed in daylight, there is a type of small camera with a focal plane shutter and fitted with a direct vision finder to be held on a level with the eye.

Of course rapid plates and films must be used, but the ultra rapid brands are best avoided except for extreme rapidity of motion or use on dark days. The keeping quality of these brands is poor, their emulsion is rather coarse and they tend toward flat results and will fog very easily. Such plates are much faster than any films but for most work the latter are suitable, particularly the new speed film obtainable in both rolls and packs.

Under timing is always the tendency in all speed work, so that tank development with a weak solution is the best method to bring out all the shadow detail of which an exposure permits. Pyro, rodinal, and glycin are particularly desirable for this purpose because of their clear working properties.

But let us not forget exposure. It is a big problem in all speed work, and more so than ever in photographing winter sports. Of course the light is much lower and less actinic in winter than summer, yet the light reflected by the snow so compensates for this loss that exposures are only a trifle more if at all. One thing must not be forgotten, however, viz.: there is a correct exposure for the brightness of the light, and one for the rapidity of movement. It is desirable to have these coincide, but as that is not always possible, it is essential to adopt a plate or film possessing great latitude and one which will permit of considerable coaxing in development without fogging. For



SUN AND SNOW *Willis Clarke Noble, M. D.*

instance, the average winter exposure with a rapid anastigmat lens and focal plane shutter will vary from 1/100 to 1/200 second, but this is not fast enough to stop very rapid motion. Thus it is that those motion photographs which are correctly exposed for light but irrespective of motion might as well have been made with a high speed lens shutter, while nearly all of those of very rapid motion are more or less under timed. In fact it is due only to the latitude of the best plates and films, the choice of a suitable developer and the judgment of the worker in using it that we see any pleasing photographs of rapid motion at all.

The shutter speeds necessary to stop motion depend upon the speed of the object, its distance, the direction in which it is moving and the focal length of the lens. One can give as much study to this interesting matter as seems desirable, but the following table covers the requirement approximately for a five-inch lens at twenty feet, a six-inch lens at twenty-five feet, a seven-inch lens at thirty feet, and an eight-inch lens at thirty-five feet. Beyond these distances exposures must be varied according to the distance.

Subject	Right Angles to Camera	At 45°	Coming Toward Camera
Skiing, Coasting, Tobogganing, Ice Boating at 50 ft.	1/1200	1/800	1/400
Skating	1/900	1/600	1/300
Sleighing	1/300	1/200	1/100
Snowshoeing	1/120	1/80	1/40

If photographs of winter sports are successful there must be life and action; they must convey the idea of motion rather than suspended activity. It is a difficult thing to manage, but is best accomplished by right selection of the point of view and the exact instant of exposure. It is often possible to choose such a viewpoint that an object appears as if it must move because of the steepness of the slope. This is particularly true of persons, skiing, coasting, or tobogganing, and often in these sports persons lean forward or assume some posture of obvious tension of the body which is characteristic of motion and cannot be mistaken. Even the leaning body of a skater as he makes a sharp turn, the rearward flying muffler about a coaster's neck, or the windward runner of an ice boat high in air suggest motion and so are of great assistance in preserving the sentiment of the sport. If it happens that some of these rapidly moving details are a trifle blurred in the photograph it will in no wise detract from the spirit of motion, provided of course that they are still recognizable, and also that other portions of the picture have sufficient definition.



HER MAJESTY QUEEN ALEXANDRA — *Baron de Meyer*



BARON DE MEYER'S EXHIBITION

With Four Illustrations

BY R. H. SCHUMACHER.

AN EXHIBITION of Photographs, by Baron de Meyer, of London, has been held at the Gallery of the Photo Secession in New York.

Baron de Meyer is not unknown in America. As a society man and a photographer he has become closely identified with New York Life, and his photography has been celebrated in both salons and studios.

In "From the shores of the Bosphorus," you are greeted with a fascinating glance from the eyes of a partly veiled face when you penetrate the vague and mysterious semi-darkness of the entree to the Secession Galleries.

In the main gallery, however, you are not confronted with fascinating exhibitions of visions, as we had admired in so many of the interesting exhibitions arranged by the Photo-Secession in former years. An overwhelming simplicity, a refreshing delicacy of intention, a beautiful technique of portrait subject, that is what I saw while standing before de Meyer's pictures.

"De Meyer is really a fine portrait photographer," an authority on art matters said, an eminent art critic. "I prefer his portraits to most paintings because most portrait painters too often say aint in paint."

The impression that the exhibitor has received an education which is not always obtainable in schools never leaves me after I have entered the Gallery. And I think I am right in saying that this impression which I received from the pictures is general to that received by the many visitors to the exhibition.

Amongst the exhibited pictures, "The Silver Skirt" and "The Silver Cap" meet universal admiration. "The Silver Cap" has an unusual charm about it.

One can say the same of the "Silver Skirt," in which scintillating beauty and joy of life seem to go hand in hand.

I have heard it said that De Meyer's art does not contain any intellectual suggestions, and I should like to seize the opportunity to contradict this in a certain measure.

See the portrait of Marchess Cassati. I should call it a study; and if one is apt to lose oneself in this study one may, by those eyes, be brought back to the atmosphere of the stone age and experience something like those ex-



LADY O'HOLME MORRELL *Baron de Meyer*



BARONESS DE MEYER — *Baron de Meyer*



GITANA AT SEVILLE — *Baron de Meyer*

quisite shudders creeping over one, with which wild beasts fascinate their prey before they tear it to pieces.

Let us turn to De Meyer's decorative qualities.

For my own part I had never seen such prints, deliberate convincing, exquisite in their refinement and of such delicacy of intention as No. 16 "Water-lilies," "Glass of Porcelain," and "The Fountain of Satum, Versailles." In this last named the vision loses itself in an old pass lined with the tall and stately trees of France which seem to rustle with bygone memories.

Absolutely different is "Windows of the Bosphorus." Here are strips of light, which lie restfully on the moving waters and remind one of the "brutality of the four walls" from which Strindberg took "Leitmotive" for his novel and stories.

The subject might also remind one of Japan's Yoshivaras where coolies with bent shoulders and unkempt hair, by ghostly lantern light just drag a despairing victim from the gloomy canal. And the song of the passed-by sounds dismal and dreepy through the dense and blue air.

Assa mara aeh—assa mara aeh!"

These sort of motives do not seem to suit De Meyer. At least they do not seem to suit his refined nature, nevertheless their effect is stony and telling.

Another group fascinates the New Yorkers again and again. Don't you seem to know Mrs. Moody's resignation? Although New York is not familiar

with these very originally expressed types: "Hope and he will bless you," the features of the old mother seem to say, though life seems to have not been gentle for her.

Quite different is Mrs. Young of Glebe Place, Chelsea. She is lifelike and bubbling over with vitality, so much that I almost miss the fumes of a whiskey bottle. It shows De Meyer's atmosphere in so far as the dear old lady must have felt a certain constraint when she sat down to be confronted by the camera.

The third of the "Three Graces," *si licet venia verbo*, expresses absolute consciousness and understanding of life, at the same time an understanding for De Meyer's methods which reflect from her fine and at the same time strong features.

De Meyer's exhibition is well patronized by *tout le monde;* professional photographers for example and society people meet there.

Some times one of the latter having been a victim of one of the former, the meeting occasions regret on both sides. And both draw their own conclusion regarding the superior accomplishments of Baron De Meyer as a photographer and the happier fortune of those who have been his sitters.

BROMOIL NOTES

(*Special correspondence from London.*)

BY REV. F. C. LAMBERT, M.A., F.R.P.S.



THERE is nothing quite so instructive as watching an expert workman and having a running commentary as to why he does this and avoids that. It fell to my lot to be present at an informal, but excellent demonstration at the Camera Club (London) a few days ago when one of our most expert and pictorial bromoilers, viz., Mr. R. Lincoln Cocks had a little buzzing swarm of inquirers round his table while he went through every step of this process in demonstration and explanation. As no detailed account of this evening is likely to find its way into the journals I think I can give such a succinct account of the whole process that any one should be able to make a start and may expect to get a fair result the first try.

But of course the expert handling of the inking brush is one of those things which can come only with practice, as it requires a lightness and quickness of touch that can *not* be put into inches, or ounces, or seconds. One just has to try this and that way until we *feel* and *see* the image growing with every brush touch. To proceed. Select a negative with a good range of densities or tones; preferably one with large broad masses rather than a lot of fine detail, and make (by contact or enlargement), a good bright, but not

hard and chalky print. To start with, a half plate size is quite big enough. Some papers are more suitable than others. The following are good: Griffin's bromoil, Kodak Royal, Ilford Bromona, Ilford Carbon Bromide, and doubtless many others. Gaslight papers are *not suitable*. What we want is a paper with a fair amount of gelatine on it; and the gelatine should be tough rather than soft. Our aim is a gelatine that will absorb water fairly readily and swell up and at the same time will stand dabbing with the ends of the hair of a medium-soft brush. Amidol is the favorite developer. Develop fully, fix fully, wash thoroughly, and dry the print in the usual way.

The sport now begins, for it really does possess a sporting element and quite often one gets pleasant surprises—also the other kind as well. 1. The dried print is now soaked in plain water for a few minutes so as to get it uniformly flaccid.

2. It is now "bleached." Here is one of the many formulæ already published that is as good as any other. I fancy this is Hewitt's formula but on that point I am not quite sure: Water, 20 ounces; potassium bichromate, 2 drams; potassium ferricyanide, 2 drams; potassium bromide, 2 drams. alum, 1 ounce; citric acid, 2 drams. The print herein remains until the image is thoroughly bleached to a orange gray kind of nondescript color. This may take only a few seconds or many minutes. The bleaching bath may be used over and over again until it is worn out. The prints are now washed until free from any yellow paper stain.

3. They now go into the following bath for six to eight minutes at 65 F., or rather shorter time in warmer weather. Acid bath: Water, 20 ounces; add very slowly and stir well all the time, 1 ounce sulphuric acid. The addition of the acid evolves heat and the mixture must be allowed to cool down before use. On no account must the water be added to the acid. This bath also may be used repeatedly.

4. The print is again washed for a few minutes and then goes into the fixing bath. 5. Water, 20 ounces; hypo, 2 ounces; soda sulphite, ½ ounce.; herein it remains about five minutes. 6. It is now again washed in several changes which may conveniently occupy about an hour.

The paper should now show no colored image of any kind, for we have converted the original silver image into silver ferricyanide in the bleaching bath (2) and then dissolved this away in the fixing bath (5). But if the print be surface dried with fluffless blotting paper or dry rag, and it be looked at sideways we should see a slight but desired suggestion of relief in the highlights of the subject looking shiny and projecting while the shadows and darks are dulled and recessed. The silver-free highlights absorb water and swell up. The shadow parts where silver was originally have been tanned and do not swell and look dull. If now we apply a *greasy* ink the swollen water-loaded parts will not "take" the ink and so remain light, the dark, tanned, non-swollen, dull parts "take" the greasy ink and give us our shadows. (This is, in fact, slightly modified collotype based on the work of Fox Talbot, 1853, and Poitevin, 1856.)

A flat board, or sheet of stout glass, zinc, etc., is covered with a couple of sheets of blotting paper previously dipped in cold water for a minute or two. Over them is laid even and flat one thickness of fine linen. On this is laid the print face upwards. Then comes a piece of dry fluffless blotting paper. Over this we pass a roller squeegee with just enough pressure to get contact enough to get our print *surface* dry.

Now for the ink. The beginner may wisely buy a tube of "bromoil ink" from the photo dealer's, but if this be not obtainable he may try a *stiff* litho ink, or he may take Mr. Cock's latest tip, viz.: pastel powder color and lard. (Pastel powder colors are obtainable in glass tubes from any artist's color supply stores.) For a palette one may use a glazed tile, a piece of thick ground glass, or the back of a dinner plate. To mix one's inks use either a marble muller, ,a palette knife, or old dinner knife worn a bit thin and springy toward the point. Take a bit of (salt free) lard, the size of a pill; spread it out on the palette and add the powder color a little at a time, mixing it very thoroughly with the lard until you get a cream, then until it is like butter, and yet adding more powder until it is like a stiff butter, soft cheese—just stiff enough or soft enough to give under the palette knife. It is now spread out on the palette covering a space about the size of the palm of the hand.

Brushes specially made for the process are obtainable in all sizes. The best are made of fitch hair (polecat) and have their ends cut slanting (or askew) across the brush end called a "skew fitch." But if this can not be obtained we *can* manage very fairly well with a round *soft* hoghair of the finer hair kind. To begin with one may use a brush whose hairs are somewhere about the size of a finger and say half inch or so in diameter.

The dry and quite clean brush is lightly dabbed half a dozen times on the inked palette so that the extreme tips *only* of the hair are charged with ink. We now dab, dab, dab our inked brush on the shadow parts of the (surface-dry but water swelled) print. If all goes well we find the ink slowly leaving the brush and sticking to the shades and shadows of the print. After a few seconds of print inking our brush will require a few more dabs on the ink palette and so on.

(a) Take note carefully that the dabbing of the print must not be rough or firm enough to damage the gelatine, but short of that it is surprising what a lot of firm dabbing some papers will stand.

(b) Next bear in mind that you have to work in the shadows and darker parts first and lighter tones later on. Therefore you must begin with a stiff ink.

(c) When you find that you can not get your half-tones with this stiff ink you can "let it down" *i.e., very slightly* dilute it with a minute touch of lard if you are using pastel color, or with litho varnish if using litho ink, or artists oil, "medium" if you are using tube color.

(d) Another tip for use when one wants to get a soft contrast effect, is to clean the brush with a bit of old and fluffless linen rag, just perceptibly

moistened with petrol and then use the unloaded dry brush. This picks up pigment from the loaded darks and transfers it to the half-tones.

(e) It is quite possible to follow a stiff ink with one less stiff, but not *vice versa*. Therefore always begin with the stiff ink.

(f) Should the whole or part of a print be unsatisfactorily inked the ink may be removed entirely by a bit of rag or cotton wool moistened with petrol and this followed by a rag or wool moistened with water and inking started *de novo*.

(g) It will be now evident that one leading factor is the amount of water taken up by the gelatine, *i.e.*, internal wetness apart from any *surface* moisture. Consequently the print has to be supported on wet linen over wet blotting paper and also it may be necessary in a dry atmosphere, or with a large print to remove and soak the print in cold water after partial inking. Should this be necessary the print will have to be surface dried very carefully by dabbing with a ball of dry old linen rag.

(h) When a print has been inked it is best dried by pinning it to a board and setting the board up on edge in an airy, dust-free, place. When dry, dust particles can be taken off with a needle set in the wooden haft of a penholder.

Highlights can be cleaned up or strengthened by a piece of ink eraser cut pencil shaped and held in a crayon holder. (The beginner is usually ytempted to greatly overdo this lightening up.)

Inks of various colors are obtainable, but until a little experience has been gained I strongly advise the worker to stick to white paper and black ink.

On reading through the foregoing I find I have put my own oa rinto Mr. Cock's boat a good many times, but I feel pretty sure his experience is very much the same as my own, and that of most others who have experimented with this fascinating process.

Bromoil can be made to give a high degree of detail, but that is not where its advantages come in. Indeed they lie in quite the opposite direction, viz., in the power of subduing fidgeting detail, broadening such patches, and simplifying the composition. For this reason one will advisedl yselect negatives for this process which are capable of being improved by this simplifying treatment.

The process is good for portrait, figure, genre, architecture, street scenes, and foreground effects; but at present it is seldom satisfactory where the sky occupies any thing beyond an insignificant part of the composition. Skies usually are the weakest and least satisfactory part of even the best bromoil worker's results.



PRINTING PROCESSES OLD AND NEW

BY MATTHEW WILSON.

PART I.



IN RESPECT of what may be termed their synthesis, most important, by reason of the superior degree of the printing processes which find favor and exclusive employment at the present day in practical photographic operations are chemically noteworthy on account of the circumstance that the series of reactions upon which they are based is a very limited one, there being, indeed, actually required for the preparation of the various compounds that are currently made use of for sensitizing purposes, only three elements pertaining to the metallic group of simple bodies.

Of the elements in question, namely, silver, chromium, and iron, the first mentioned is, of course, from a photographic standpoint, by far the sensitiveness to light which its compounds are found to exhibit. The second, nevertheless, finds many important applications, especially in that department of reproductive work which we are accustomed to denominate by the rather ill-chosen term of carbon printing; whilst iron, the remaining element, is of service to the photographer by providing him not only with the light-sensitive salts through the agency of which the reduction of the platinum compounds to the metallic state may be readily effected and profitably utilized for printing purposes, but also with the cyanotype or blue printing process which is so frequently employed for the production of prints of maps and plans by draughtsmen and engineers.

About the middle of last century, however, certain photographic printing processes, differing in many respects, both as regards the necessary manipulations, and the elements entering into the composition of the sensitizing bath, from those just mentioned, were described in detail by Sir John Herschel, Robert Hunt, Fox Talbot, C. J. Burnett, and several other well-known contemporary investigators. To the majority of the photographers of the present day these early processes would seem to be little familiar if not altogether unknown, as they are seldom or never referred to in our current technical literature, whilst modern research, moreover, has, for the most part been confined to the study of our existing printing methods with a view to their modification and improvement. Despite this fact, several of these discarded and forgotten processes, although admittedly inferior for general printing purposes to those at present in vogue, are by no means without a certain merit, so much so, indeed, that one or two of their number, it is permissible to think, might be revived with advantage by present-day photog-

raphers for the production of effects otherwise unattainable. It must also be borne in mind that a very considerable proportion of the data collected by the early experimenters is of the nature rather of hastily collected and imperfect memoranda on the behavior under actinic action of certain sensitizing media, than of carefully worked-out formulæ for the production of photographic prints.

These facts being clearly understood, we may with considerable confidence and probability conclude that a careful sifting of the mass of material collected by the pioneers of photography, and representing the results of their combined experience in this particular branch of the art, would to-day repay a duly qualified investigator for his expenditure of time and trouble. The chances of success or failure in such an undertaking would, of course, be very largely dependent on the nature of the data so selected for examination, the memoranda of imperfectly-studied reactions being naturally better adapted as a basis or starting-point for further research than those having reference to processes and formulæ more fully examined and developed.

With the object of assisting any who may be sufficiently interested in this subject to propose to study it in its practical aspects, it is in the present and following articles intended to describe in brief detail some of the more notable chemical and physical reactions that have been found to be produced by the influence of radiant energy, including most of such as fall under the special category to which reference has just been made, and through the agency of which it has been proposed to produce prints from the photographic negative. For the purpose of verifying, and, not infrequently, of amplifying, the particulars that have been given by the early authorities, certain of these reactions have been experimentally repeated by the writer, the requisite manipulations being performed sometimes in the original and sometimes in a modified form. In all such cases, the results so arrived at, whether coinciding or not with those obtained and described by the experimenters of last century, will be carefully recorded for convenience of reference, along with any additional facts that seem likely to prove of practical service to the operator.

At this initial stage, and before proceeding to the examination of individual reactions, some preliminary remarks would seem to be necessary in order to explain the principle upon which certain interesting chemical and physical phenomena due to the agency of light have not been included in the series described in the present articles.

The changes which are produced in the constitution of sensitive bodies under the influence of exposure to light are so exceedingly numerous, and at the same time so varied in character, that it would be not only absurd but misleading to attempt a classification of them in their entirety as reactions purely and simply pertaining to what is ordinarily understood by the term photography. Properly speaking, the word is, of course, appropriate for use only under certain circumstances, in those, namely, in

which an image, latent or visible, is the tangible result of the actinic action. There are, however, it will be readily understood, some notable cases of molecular alteration effected by this agency in which the formation of any image is an impossibility. A good example of a change of this particular character, illustrative of what is perhaps the simplest type of a chemical reaction, the formation of a binary inorganic compound by the direct union of its elements, is afforded by the well known lecture experiment for the preparation of hydrochloric acid gas through the exposure to sunshine of equal volumes of chlorine and hydrogen. A parallel but probably less familiar instance of the same class of reaction is met with in the process described by Nernst for the quantitative estimation of the intensity of radiant energy, in which mixed solutions of mercuric chloride and ammonium oxalate are exposed to light. The products of the resulting decomposition are mercurous and ammonium chlorides, together with carbon dioxide, the latter being always liberated in volume proportionate to the strength of the operative radiations. The complete change is represented in the following equation:

$$2HgCL_2+(NH_4)_2C_2O_4=Hg_2CL_2+2CO_2+2NH_4CL.$$

Apart from the fact that, in cases of this kind, the change in chemical constitution that is brought about is effected by the agency of light, reactions of the type in question cannot, save in a merely academic sense, be included in the category of those that are commonly recognized and classified as photographic. Besides these, there are certain phenomena, due to the same cause, which approximate a little more closely in appearance to what are usually denominated photographic reactions, but which must, nevertheless, be excluded from that category. These are, for the greater part, cases of what, in chemical terminology, is known as allotropism, an expression which may be briefly defined as a change in the internal arrangement of the molecule-groups of a compound effected without alteration of the relative positions of the constituent atoms. As instances of structural rearrangement of this kind, may be mentioned the alteration produced by the action of light on certain bodies—mostly elemental, or simple, binary compounds, —as regards their crystalline form. Thus, ordinary yellow phosphorus, it has been observed, is slowly converted by prolonged exposure to sunshine into the red or amorphous variety; whilst the alteration in color that is found to be effected by actinic action in the case of certain of the salts of the rare metal thallium is in all probability to be attributed rather to allotropic change than to actual decomposition of their constituent molecules. As the study of the products of luminiferous action pertaining to this particular class, though interesting enough in its chemical and physical aspects, is a subject which has little or no real relation to photography beyond the fact that those products and the special phenomena upon which the latter depends are both due to the same operative cause, it is not purposed to treat here other than cursorily the reactions of the allotropic type. The same reason, as might be supposed, applies with equal force as regards the other non-photographic reactions to which allusion has above been made, and

which, accordingly, will not be further referred to in the course of these articles.

On the other hand, with reference to the selection of the matter to be included in the proposed summary of properly so-called photographic printing reactions, it is not intended to exclude from description in its entirety the extensive series of processes in which the reagents employed exclusively as sensitizers are compounds of silver, chromium, or iron, seeing that certain of the less familiar members of the series in question which are deserving of attentive study on account of their technical interest, have as yet been examined in a somewhat superficial manner. Here again, in the treatment of the available data, it will be necessary to make a distinction between processes which have been actually worked out in detail, and mere suggestions or memoranda for the production of photographic prints by the use of certain combinations of reagents.

If this method of differentiation be adopted as affording a convenient basis for classification, both in those cases in which compounds of silver, chromium, or iron, enter into the composition of the photographic formula, and in those also in which salts of other metals are employed as sensitizers, the subject matter of the proposed summary of reactions must be divided into four distinct groups.

The first group will represent the class of printing processes in which compounds of metals other than those in ordinary use are exclusively employed in the preparation of the sensitizing formulæ. The second group, similar to the first in regard to the actual reagents employed, will consist solely of notes of imperfectly studied reactions due to actinic agency. The third group will represent the series of printing processes obtained with sensitizing baths prepared from compounds of one or other of the three metals silver, chromium, and iron. The last group, identical with the third as regards the elemental components of the sensitizers, will, like the second, be restricted to memoranda of a quasi-photographic character.

(1.) THE ACTION OF LIGHT ON THE COPPER COMPOUNDS.

The behavior of certain of the salts of cupric oxide on exposure to light closely resembles that of the corresponding argentic compounds. As compared with the latter, however, the sensitiveness of the copper compounds to actinic influence is greatly inferior, a circumstance which is, of course, a serious drawback to their technical employment as sensitizers for printing purposes. Attempts, more or less successful, have been made by several experimenters to overcome this difficulty, by the addition of an auxiliary sensitizer to the formula for the copper bath. An ingenious process in which advantage is taken of this principle is due to Obernetter, and is said to give fairly satisfactory results. Close-grained unglazed paper is coated with mixed solutions of ferric and cupric chlorides, and is allowed to dry in darkness. When this is exposed in sunshine under a negative, the ferric salt is reduced to the ferrous state, the copper salt being simultaneously converted into cuprous chloride. The image thus obtained by printing-out is a very

faint one. If, however, the print be subsequently developed in an aqueous solution of potassium sulphocyanide, and, after rinsing in water treated with a weak solution of potassium ferricyanide, a reddish brown picture of considerable vigor and beauty is obtained.

In the second edition of Robert Hunt's classic "Researches on Light," (1854, pp. 174-179), notes are given of a number of experiments made by him on the behavior of the copper compounds. Some of his results are of a very instructive and suggestive character. All the salts of copper, he found reason to conclude, undergo some change under the influence of the solar radiations. "If," he says, "a solution of any salt of copper is laid over paper, and it be exposed to the sunshine, a change is brought about; and if, after it is removed from the sunshine, it is washed with nitrate of silver, the covered portion remains of its original color, whilst the exposed parts darken very considerably." No visible change, he found by experiment, was produced by long exposure to light of paper sensitized with iodide of copper. On treating, however, previously to exposure, paper so prepared with a solution of nitrate of silver, an intense black color was obtained. When this was subsequently exposed in a moist state to the action of the solar spectrum, he observed that a bleaching effect was produced with rapidity under the red and orange rays, whilst under the blue rays the original black was ultimately converted into brown.

In the course of his researches on the compounds of this metal, Hunt made some very interesting experiments with the chromates of copper, concerning the behavior of which he has left us some valuable details. For copying engravings, botanical specimens, etc., he devised a process, styled by him the *Chromatype,* which, although not sufficiently sensitive for use in the camera, proved to be serviceable for ordinary printing-out purposes, and gave, he informs us, pictures of a very pleasing character. The paper employed by him was sensitized with a preliminary wash of a solution of cupric sulphate—60 grains per ounce of water—and, after drying, with a moderately strong solution of potassium dichromate. Speaking of the printing properties of this paper, Hunt says, "When exposed to the sunshine, the first change is to a dull brown; and if checked in this stage of the process we have a *negative* picture; but if the action of light is continued, the browning gives way, and we have a *positive* yellow picture on a white ground. In either case, if the paper, when removed from the sunshine, is washed over with a solution of nitrate of silver, a very beautiful positive picture results. In practice it will be found advantageous to allow the bleaching action to go on to some extent; the resulting picture will be clearer and more defined than that which is procured when the action is checked at the brown stage. To fix these pictures, it is necessary to remove the excess of nitrate of silver, which is done by washing in pure water."

Hunt next describes some experiments made by himself with a chromate of copper prepared by precipitating a solution of cupric sulphate with the neutral potassium chromate, K_2CrO_4. The precipitate thus obtained was dissolved, after washing, in water slightly acidulated by the addition of sul-

phuric acid, and paper was then coated with the yellow solution and dried in the dark. Speaking of its printing qualities, he says, "A very short exposure * * * is quite sufficient to discharge all the yellow from the paper, and give a perfect whiteness. If an engraving is to be copied, we proceed in the usual manner, and we may either bring out the picture by placing it in a solution of carbonate of soda or potash, by which all the shadows are represented by the chromate of copper; or by washing the print with the nitrate of silver. * * * If chromate of copper is dissolved in ammonia, a beautiful green solution results. If papers are prepared with this solution, they act similarly to those last mentioned."

Some experiments were recently made by the writer of this article with the object of obtaining additional information on the effect of light on the salts referred to by Hunt. Chromate of copper was prepared by precipitation with neutral potassium chromate in the manner above described, and the newly-formed compound, having been collected on a filter, was well washed and dried. Twenty grains of the dried salt were next dissolved without the application of heat in one fluid ounce of a two per cent. aqueous solution of ammonia. Tough unsized paper of a kind suitable for printing purposes having been selected, the solution, which was of a pale yellowish-green color was applied by means of a brush, and the paper having been thoroughly coated three or four times was transferred to a cupboard and allowed to dry in the dark. Eighteen hours after its preparation a sheet of the paper was exposed under a negative for two hours in weak sunshine. At the expiry of this preliminary stage, a faint apple-green positive image, very perfect, however, in all its details, was found to have been impressed by actinic agency. The print, which had not been removed from the printing frame, was then re-exposed for about twelve hours longer, until the necessary degree of density was obtained. The resulting picture, which was of a beautiful warm green hue, was of excellent technical quality, the image leaving little to be desired in respect of contrast and gradation, though possibly greater vigor might have been secured by the employment of a stronger sensitizing solution. A number of other chromate prints having been made in the course of the ensuing week on the same batch of paper, it was noticed that these were of somewhat inferior quality to the first, the printing properties of the sensitizer having evidently been impaired by keeping. The fact was also noted that a considerably longer exposure was required to produce the same intensity of effect.

The action of solutions of certain reagents on the unfixed image was next tested. A slight weakening of the image, accompanied by a change of hue from emerald to bluish green, was noticed when one of the prints was immersed in water. On a second being treated with a two per cent. aqueous solution of ammonia, the green color was instantly changed to a light brown, which in the course of a few minutes was gradually bleached, the image being completely destroyed. A third print, on being soaked for ten minutes in a moderately strong solution of potassium ferricyanide, exhibited no visible change. A fourth print, on being immersed, after rins-

ing in water, in a solution of ammonium sulphocyanide, assumed a purple-gray tint, and lost considerably in density, particularly in the half-tones. A fifth print was treated with a weak solution of sodium fluoride, the result being that the image was completely bleached and destroyed. An aqueous solution of sodium carbonate, containing twenty grains of the hydrated salt per fluid ounce, having been prepared, a sixth print was immersed therein. In the course of two or three minutes the green image assumed an inky grey hue, and lost greatly in density, becoming finally so faint that only the deepest shadows of the subject remained visible.

Some experiments were then made with an acid sensitizing bath similar to that originally employed by Hunt. Twenty grains of the precipitated and dried chromate of copper, prepared as already described, were dissolved in one ounce of water to which a few drops of sulphuric acid had been previously added. This was found to give a bright green solution, with which paper was sensitized by coating as before, and dried in darkness.

On an attempt being made to obtain an image by printing-out this paper, it was discovered that the exposure to light necessary to produce an image of a proper degree of density was about twice as long as that required in the case of the ammonio-chromate paper, the retarding of the operation being seemingly attributable to the presence of the free acid. The resulting print, moreover, differed considerably in the quality of its hue from that obtained by the use of the alkaline sensitizing bath. The higher lights, formerly almost white, were here represented by a pale apple-green tint, and the half-tones by a bluish green instead of a yellow-green, whilst the deepest shadows, which were before of a rich green color, were now of a deep cobalt blue.

Hunt's reference to the bleaching effect exercised on this paper by exposure to light seems to imply that the image obtained by him was a negative one. In the experiment just described, however, no signs of bleaching were apparent at any stage of the printing operations, and, as in the case of the prints above described, not a negative but a positive image was produced. The peculiar character of the results described by the early experimenter may perhaps have been due to the presence of an excess of acid in the sensitizing bath.

Notwithstanding the writer's failure to produce a negative picture in the manner described by Hunt, one was afterwards obtained by him by a slightly different mode of procedure. A sheet of the sensitized paper was floated for a few seconds on a weak solution of ferrous sulphate, by which treatment the copper salt was partially reduced to the cuprous state, and the color of the paper changed from pale green to a rich deep blue. The sheet, after drying in darkness, was exposed beneath a negative in diffused light. After six or seven hours had elapsed, a weak negative image was distinctly perceptible. This, however, on further exposure to light, became somewhat blurred in its outlines, and no further bleaching effect was observed.

A few experiments on the action of light on other copper salts were made by the writer, but the compounds that were tested by him for this purpose failed to exhibit any certain indications of sensitivity to actinic agency. The salts thus examined were cupric sulphocyanide, borate, and salicylate, all of which were prepared by washing papers previously sensitized with cupric chloride, with solutions of the necessary reagents. Upwards of a week's exposure to light was given in each case, but in none were any signs of an image obtained. Attempts were then made to produce a picture by development, in the course of which the exposed papers were subjected to the action of iodine vapor, and to that of aqueous solutions of ferrous sulphate and gallic acid. The results, however, were again unsatisfactory, for no image could in any case be detected as having been produced during the developing operations.



THE PATH BY THE RIVER *Willis M. Flanders*

Editorial Notes



UR old friend and subscriber, Mr. Harry D. Williar, sends us a splendid print of a three-masted schooner under full sail, scudding along under a spanking breeze; written in friend Williar's hand, beside the picture, are the pleasant words, "The good ship, 1912. May she be heavily loaded for you with health and happiness, is the wish of yours sincerely, Harry D. Williar."

PHOTOGRAPHERS sometimes are puzzled to know why, in certain churches, a tiny lamp is kept always burning. Here we have a far-away echo of the time when the temple and then the Christian church became the depository of the sacred flame—the focus of fire, and light, and then of spiritual light and guidance. Baring Gould, in his volume on "Strange Survivals," tells us that at Tara (Ireland), was a temple where fire burned and was never allowed to go out. Also that there is still to be seen in certain churches of England, the cresset stone, or fire-altar, consisting of several (usually nine) cups in one block of stone used as oil lamps for the "focus." It will thus be seen that when the photographer enters his darkroom and lights his lamp with a "lucifer" (light-bearing) match he is echoing what was at one time a most solemn business.

PHOTOGRAPHERS for many years past have appropriated the word focus, and it is now in daily use to designate (1) the point of convergence of a beam of parallel rays after passing through a lens; (2) any rays brought to a point; (3) the general effect of an assemblage of such points as seen on the groundglass or "focusing" screen. It is, therefore, of interest to recall the fact that focus is a Latin word, meaning the hearth or fireplace, and is akin to the Greek word phos, light. This carries one back to the "long ago," when fire was obtained with much labor by the friction of two pieces of dry wood. A thing so difficult to obtain called for careful guardianship. The fire once obtained was entrusted to the sepcial care of the unmarried women—*i.e.*, the Vestal virgins—in some central place in the camp or village. The name Vesta (Sanscrit "vas," to inhabit, or "ush," to burn) indicates the home-dwelling of this protective deity. Vesta is the goddess of fire, hence of purity.

PHOTOMICROGRAPHY is such a long and cumbersome word that one can hardly be surprised to find several misconceptions have grown up around it. For example, it is commonly supposed to be very difficult and costly in the matter of apparatus and is very generally associated with microbes and high magnifications. A Mr. Smith at the Royal Photographic Society, did good service in showing that there is practically an unlimited supply of objects in Nature which do not require to be magnified more than, say, ten diameters, to reveal many of their beauties. In other words, a great deal of work of this kind may be done without a microscope at all. All that is needed is some convenient means of holding the object to be photographed, an objective of, say one inch focal length, an ordinary camera with a bellows extension of 12 inches or so, some backed ortho plates and a yellow screen.



ONE skilful exponent of night photography lays great stress not only on correct exposure, but also on correct development. *In brevissimo*, his text and practice is slow development with a very dilute developer. Here is his formula: A.—Pyro ¼ ounce, potassium metabisulphitte 15 grains, pottassium bromide 10 grains, water 20 ounces; B.—Soda sulphite 2 ounces, soda carbonate 2¼ ounces, water 20 ounces. For an average case take one part of A, two parts of B, and twelve parts of water. At normal temperatures the image may be expected to put in its appearance in about one and one-half minutes. Lantern slide examples were shown from negatives whose exposures ranged from two seconds to ten minutes with *f*8. This worker is of opinion that the usual exposures are as a rule needlessly long, and certainly the average excellence of his results entitle his opinions to the most serious consideration.



"THERE are few 'rules of composition,' so-called, to which we cannot find well-justified exceptions," writes our learned contributor, the Rev. F. C. Lambert. "But I think there is one such rule—or as I prefer to use the word, 'principle'—which is of something very like universal application. It is that nothing in the picture should lead the spectator's eye out of the picture. This fundamental principle leads to many important practical applications. For instance, the strongest light and deepest dark in a picture are very generally of leading importance, and naturally attract the eye. Therefore they should not be placed close to the sides or near the corners of the picture. Nor is it desirable that they should fall exactly on either diagonal if they be small and pronounced, lest they tend to make imaginary diagonals. Whence it follows that the center of the picture, being common to both diagonals, is a position of weakness for any feature of pictorial importance."

THIS is essentially the day of the small negative, made with a view to subsequent enlarging; consequently, the presence of defects in these small negatives is a very frequent source of anxiety and queries. One of our chief, because most frequent, troubles is the minute clear pinhole-like round spot with sharply defined edges, caused by a speck of opaque dust adhering to the film, and so preventing the light affecting this particular part of the film so that it fixes out as a little circle of clear gelatine on the glass. If the spot is fairly large one can often touch it out on the film side with a little Indian ink or lampblack (water-colors), using either a finely-pointed small camel's-hair brush, or, what is easier, viz., a mapping pen. If the spot is very small it is not very likely to show at all on the enlargement. It should be noted that a rough, or even matt, surface is not nearly so likely to show pinhole spots as is a smooth or glossy surface.

YOU should see the attractive calendar which Mr. Floyd Vail has made of the cover illustration of our January number. He has remembered us in sending them to his friends at the beginning of the New Year; and it certainly is a "peach." Friend Vail is nothing if not artistic, and we are glad to announce that we shall have some more of his prize-winning pictures to show our readers at an early date.



"MAX" *Eugene Vail*

Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

Die Photographischen Lichtfilter, by A. F. von Huebl, 1910. Eighteen illustrations, five tables. Published by Wilhelm Knapp, Halle, a. S., Germany. Price, Mk., 4.50.

The increasing demand for color correct reproductions and various color processes has brought about an improvement in light filters. v. Huebl is a high authority on this subject and for this reason alone his book should prove a welcome addition to orthochromatics. There are 110 pages besides the tables, and one color chart and its reproduction with plates sensitized with various dyestuffs and photographed through different color filters, liquid and dry.

The spectral peculiarity of the dyestuffs and the graphic demonstration of the absorbtion spectra; the influence of the density of the dyestuff on the spectrum; the various dyestuffs suitable for filter purposes and their chemical properties.

Basic and acid dyestuffs and the action of light on the same. The technique of filter making, monochromatic compensation and selective filters and their characteristics, are other topics discussed.

* * *

PANCHROMATIC PLATES.

It is claimed by three-color process workers that the self-prepared color sensitive plates give better color values than the average commercially sensitized plate.

Suitable plates are treated the night befor they are to be used, and allowed to dry until the next morning, preferably in a drying closet. We might add here that it is of advantage to dry plates as rapidly as possible.

The following bath is recommended by Reche:

English.		Metric.
3⅓ ozs.	Water	100 c.c.
15 minims	Ammonium hydroxide	1 c.c.
30 minims	Alcoholic pinachrome solution 1-1000	2 c.c.

The plates are placed in the above bath for about four minutes and then rapidly dried in the dark.—*Apollo*, Vol. 17, No. 393.

* * *

IMPROVED METHOD FOR DEVELOPING AFTER FIXING, BY A. & L. LUMIERE & A. SEYEWETZ.

The first attempts to develop the latent image after fixing appear to have been made by Jung in 1858; he used a collodion emulsion. In 1894 Kogelmann applied the observations of Jung to gelatine bromide, using both "pyro" and ferrous sulphate with silver nitrate. Sterry took up the work again of Kogelmann in 1898 and showed the possibility of its practical application. Later Dr. Neuhauss followed up Sterry's tests and proved that the composition of the developer as a prime factor to obtain pictures after fixing. He gave a very complicated physical developer, which, although working slowly, gave better results than those proposed by his predecessors. On the whole, the necessary exposure is about twenty times longer than that required for the usual method of developing before fixing. In the present study we proved that the above disadvantages can be removed, the solution simplified and the time shortened. We also investigated to see if it were possible to use other metalic salts besides silver, suitable to develop the image after fixing. We found mercuric bromide an interesting substitute, as we shall see below. On the account of the partial destruction of the image in the fixing bath, and to prevent this, we endeavored to fix the plate under various conditions. Fixing baths of different strengths were used and it was found that the exposure could be reduced according as the fixing baths were more diluted. Sodium thiosulphate of two per cent. strength gave us practically the best results.

Other solvents for silver bromide were tried, but none gave any better results than the above bath, excepting possibly a concentrated solution of anhydrous sodium sulphite, but with the latter salt the time of fixing is greatly prolonged, especially with a fast emulsion. In the latter case it is practically prohibitive.

THE METHOD WITH SILVER SALTS.

We carefully tested the various formulæ published for physical development and for silvering mirrors and also varied their ingredients, but none gave us satisfactory results.

On the other hand we obtained good pictures with silver sulphite dissolved in an excess of sodium sulphite. The latter compound is easily prepared by adding a solution of silver nitrate to a solution of sodium sulphite and dissolving the precipitate in an excess of sodium sulphite. The above solution in a yellow bottle keeps without any change. If a small amount of a developing substance is added to the silver sulphite solution, the silver is slowly precipitated.

The following developer gave us the best results:

English.		Metric.
	Solution A.	
33 ozs.	Water	1000 c.c.
6 ozs.	Sodium sulphite, dry	180.0 gms.
2½ ozs.	Silver nitrate, 10% sol.	75 c.c.
	Solution B.	
33 ozs.	Water	1000 c.c.
2½ ozs.	Sodium sulphite, dry	10.0 gms.
5 ozs.	Paraphenylenediamine	20.0 gms.

For a 5 x 7 plate use 150 c.c. (5 ozs.) of A and 30 c.c. (1 oz.) of B. Paraphenylenediamine can be replaced by an equal quantity of metol, hydrochinone or pyro. The three latter permit a quicker development, but the solution sooner becomes cloudy and the silver is precipitated on the image.

The rapidity of the development can be varied by adding more or less of the developing liquid; this also influences the color of the image. Good results are obtained if the plate is fixed in a two per cent. sodium thiosulphate solution, then well washed to remove every trace of the fixing soda and then developed with the above solution. Slow emulsions give better results than fast if four times the normal exposure is given. By normal exposure we mean that given for the usual method of developing before fixing.

Fast emulsions require six times the normal exposure. An advantage of the slow emulsions is that they yield fog-free images, which is not always the case with the fast plates. For bromide prints the above holds good, but there is no practical advantage in using the method in this case. The color of the prints is not agreeable nor can the appearance be improved with gold toning.

THE METHOD WITH MERCURY SALTS.

We tried to use other metals besides silver, whose sulphites were soluble in an excess of sodium sulphite.

Mercury appears to be the only one of special interest to us, and in some cases it seems to possess an advantage over silver, the image is less dichroic and more transparent. With prolonged development the plates do not have the tendency to fog. The mercury developer also remains clear longer than the one with silver and even with long development, no precipitate occurs. The solution with silver develops slower than the mercury, the latter giving better contrasts. After numerous tests the following mercury developer gave us the best results:

	Solution A.	
33 ozs.	Water	1000 c.c.
6 ozs.	Sodium sulphite, dry	108.0 gms.
2¼ ozs.	Mercuric bromide	9.0 gms.
	Solution B.	
33 ozs.	Water	1000 c.c.
5 ozs.	Metol	20.0 gms.
5 ozs.	Metol	20.0 gms.

For a 5 x 7 plate take 150 c.c. (5 ozs.) of A and 30 c.c. (1 oz.) of B. The plates should be fixed in a two per cent. sodium thiosulphate solution as directed above. The double sulphite of silver and sodium and the corresponding mercury and sodium compound which we suggest in place of those heretofore used for the physical development has the advantage in that it is simpler and at the same time quicker. The silver or mercury is precipitated only slowly, nor does any silver chloride precipitate, consequently no distilled water is necessary. The great dilution of the fixing bath permits obtaining good results with a shortening of the exposure.

Items of Interest

This being a day of "press the button" photography, ready mixed developing and fixing formulæ and general photographic perfection, it is difficult for the modern generation to realize how many, how slow, and how painful have been some of the steps through which camera art has reached its present stage of development.

The writer recently came into possession of a bundle of very old newspapers, and in one of them, a copy of the *American Democrat,* published at Akron, O., Thursday, June 5, 1845, he encountered an item that has a comic side, when considered in to-day's light, but which was then considered of sufficient importance so that it was widely copied and reproduced among the newspapers of the country when it first appeared.

The item follows:

"An entire military company, the Burgesses Corps, were daguerreotyped in Albany a few days since while standing at 'shoulder arms' in one of the streets of the city. The papers say, every man's face may be recognized."

H. S. Quine.

* * *

THE DEATH OF HENRY SNOWDEN WARD.

We learned, with great regret, just as we went to press last month, of the death of our esteemed English contemporary, Henry Snowden Ward, which occurred December 7th, 1911, in New York City. Mr. Ward was born at Great Horton, Bradford, England, Feb., 27, 1865. He was the son of William Ward, a manufacturer of textile goods, and was educated in the schools of Bradford, including the Technical College. He then engaged in general journalism and special editorial work regarding photography, of which he had made a profound study. Although Mr. Ward had been an editor of photographic journals and a writer of photographic and other books, his principal literary works were "Shakespeare at Home," "The Real Dickens Land," and "The Canterbury Pilgrimages." He founded, in 1894, and edited thereafter, an annual volume of reproductions and critiques on the most notable photographic work, entitled "Photograms of the Year," which has always been regarded as one of the most authoritative reviews of pictorial photography published in any country.

* * *

WHITE SKIES.

With not a few photographers it is quite a long time before they realize the fact that a blank white paper sky part of a landscape print is not only impossible as a presentation of sky or cloud, but also in 99 per cent. of such prints a blank paper space fatally upsets the tone values of the other parts of his print. There are two ways out of this trouble. First we may—and most advisedly should—use a color sensitive plate and color screen when taking the negative. Of course, it does not always happen that if we do secure the sky part of the scene on the same plate as the land part we have got the best sky for the picture, but at any rate the sky and clouds present at the moment are certain to be vastly better than blank white paper; in any case we can always stop out the sky part when so desiring.

* * *

CLOUD FORMS.

Secondly, it is too frequently assumed that cloud forms must always be introduced where sky printing is resorted to. But this is a great mistake, for in many—perhaps the majority of—outdoor subjects dealt with by photographers a delicately graduated plain, *i.e.,* cloudless, sky is preferable. Without the use of diagrams and



WHEN VACATION DAYS ARE O'ER — *Willard Moore*

more space than can be here afforded it would not be possible to give practical instruction in cloud and sky printing. But if the reader will refer to the recent issues (viz., June 26, p. 627, and July 3, p. 9), of the *Amateur Photographer,* he will there find ample instructions (with examples) for performing the very simple and easy operations of introducing a plain graduated sky, and also stopping out and printing in clouds from a second negative. Just one word of warning is needed. The beginner in this part of our craft is usually agreeably surprised to find out how easy the whole business is, and thus is tempted to go at it somewhat carelessly, with the result that from a blank white sky he swings the pendulum to the opposite extreme, making his sky and clouds very much too dark and forceful.

* * *

THE TONING OF BROMIDE PRINTS

Is a subject which apparently never fails to interest a gathering of photographers. Nor was there any departure from custom when Mr. Ernest Human, at the L. and P., read a short paper, and showed experimental results in connection with the sulphide toning process. His two stock solutions are (a) Potassium ferricyanide 400 grains, potassium bromide 600 grains, water 10 ounces; (b) Sodium sulphide 10 per cent. For use these solutions are diluted with nine volumes of water. Mr. Human laid great stress on the need for using hot water to dissolve the soda sulphide and then boiling the solution. He was of opinion that the presence of a small quantity of hypo accounted for that disagreeably yellow tinge too often seen in this toning process. Another point insisted on was the desirability of drying the print before toning operations were commenced. A point often lost sight of was that if a print not properly freed from hypo were put into a solution containing potassium ferricyanide, a reducing action would probably take place. Mr. Human strongly advised the use of freshly, or, at least, quite recently prepared solution of sodium sulphide, if satisfactory colors were desired. With regard to spots, which are by no means unknown in this process, he thought they were attributable to insufficient care in the avoidance of air bells clinging to the surface of the print while in the fixing bath. Another important factor was correct exposure and full development of the print in the first instance, over-exposure and under-development contributing to yellowness of the final result. Mr. Hadden sug- Spain every squad and company was progested that the sodium sulphide solution should be made with water that had been previously well boiled and allowed to cool.

* * *

The art of photography was introduced in this country in 1840 and had been in general use not over fifteen years when the war broke out. The discovery of a method of multiplying pictures from a single negative by the photographic process, was made only a few years before the secession of the Southern States. The dry plate was unknown then, whereas in the recent war with vided with a Kodak.

Photographic Reviews

Penrose's Pictorial Annual, 1911-1912. The Process Year Book.

To those of our readers who are interested in the art of photography as applied to the mechanical processes whether in color printing or otherwise, we know of no other book, annual, or single volume, which deals in so comprehensive a way with the different processes of illustration. We give herewith a list of some of the articles which should be of interest to photographers whether they make a speciality of magazine or other illustrating.

Air Brush Construction and Cleaning, Enlarged Negatives in a Small Camera, Focal Length of a Photographic Lens, by a simple graphical Construction, Intensification of Process Negatives on Dry Plates. On Making Line Drawings from Photographs, Old Negatives and Their Lessons, Photographic Optics, Simplified Photography as an Aid to Advertising, Poetic Photography.

There are other articles devoted to the "Application of photography to lithography, "The Bromoil Process and its application to Photo-Lithography," and other kindred subjects.

The book is illustrated throughout with color plates, half-tones, and inserts. All in all it is a most excellent book and we commend it very highly. Price, $2.50. Tennant & Ward, American Publishers, 122 East 25th street, New York.

⁂ ⁂ ⁂

We have received from our friend, Mr H. O. Bodine, Advertising Manager of the Wollensak Optical Company, a very useful little booklet "Concerning Lenses in General," and including an answer to that puzzling question "What type of lens is best for my purpose." The book is illustrated with reproductions from negatives made with their various lenses, and there is a complete description of the various types of objective made by this enterprising company, together with a price list and other particulars. For years the firm of Wollensak has been making photographic lenses and shutters exclusively; each instrument leaving the factory is guaranteed in every respect, no Wollensak product being considered sold until the customer is thoroughly satisfied with it, their policy being "Let the user judge."

The Wollensak company also announces their desire to receive samples of work made with their lenses, with a view to purchasing those which they can use to advantage in their advertising booklets, etc.

⁂ ⁂ ⁂

In the January number of *Portrait,* published by the Ansco Company, several new features are introduced which ought to prove very popular. In addition to the portrait illustration which embellishes the cover each month, adding to their "Hall of Fame," they now print portrait illustrations in the body of the little magazine, as well as illustrations to their articles. The leading article for January is entitled "How to develop Ansco Films in large quantities," and is illustrated with an Ansco Developing Tank and Ansco Film Clip. This article contains valuable information of an entirely practical character.

⁂ ⁂ ⁂

We have received from our subscriber, Mr. W. O. Lott, of Regina, Sask., Canada, a very pretty calendar illustrated by a photograph entitled "A Sunflecked Autumn Glade." Mr. Lott is good enough to say the PHOTOGRAPH TIMES is O. K.



The above is a reproduction of the cover of a very interesting little book recently issued by the Wollensak Optical Co., for distribution through photo supply dealers. It touches in an interesting way upon lenses in general and as well gives an honest and concise answer to that puzzling question, "What type of lens is best for my purpose."

The first part of the booklet is taken up with an explanation of the speed of lenses, diaphragm apertures and their use and goes on to explain the relative exposures of different stops, depth of field, definition, and how regulated and how to focus correctly for landscapes, groups. It takes up th edifferent kinds of work, etc., and in an interesting way tells why one type of lens is best suited for a particular kind of work. Three pages are devoted to a very interesting description of the Velostigmat lenses, and the Velostigmat Series I, II, and III, are illustrated and described in detail as well as the Versar Portrait and View *f*6 and Verito Diffused Focus, *f*4 and the Optimo Shutter.

Copies of this interesting booklet can be obtained gratis from any photo supply dealer in this country or Canada. Should any of our readers have any difficulty in obtaining the same, a copy will be sent direct by the Wollensak Co., upon receipt of their request and the name of their dealer.

☆ ☆ ☆

"Photography Indoors," just published by Bausch & Lomb Optical Co., will appeal to the amateur photographer.

It is a very attractive book done on Indian tinted dull finished paper with warm brown duotone ink. The illustrations are interesting and the general effect of the book artistic. Diagrams accompany each illustration showing exactly the conditions under which the originals were made. Much useful information is contained in the book.

Copy may be obtained from the Bausch & Lomb Optical Co. on receipt of inquiry mentioning this journal.

Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

METOL HAUFF—GREAT REDUCTION IN LIST PRICES.

Our readers will be pleased to learn of a reduction of nearly one-third in the list price of Hauff's celebrated metol, ortol, amidol and glycin developers which removes at once and forever the question of cheaper suubstitutes.

Metol-Hauff is now as may be readily seen absolutely the best and cheapest developer used with hydrokinone at the most common percentage of 1 to 3; it costs as about as much as hydrokinone did ten years ago and it is almost impossible to figure down to decimals the cost of developing a print.

We strongly urge photographers to take advantage of this great reduction in price by being more liberal in the use of this wonderful developer, as it is really surprising how great is the improvement in detail and softness, where a larger percentage of Metol-Hauff is used in the developer—try the proportions of 1 to 2 or even equal parts which now cost no more than the 1 to 3 proportion, so generally in use up to this time.

Messrs. J. Hauff & Co. urge their patrons to beware of mixtures offered at cheaper prices, with a plea that they save the photographer the trouble of mixing his metol with hydrokinone, or weighing separately, as there is no guarantee that they will receive any Metol-Hauff in such mixtures.

Metol-Hauff should not be purchased in any but the original packing, so well known in the trade for the past twenty years. Look for the little white ticket on the bottle, which bears the name of the American Agents, the well known Photographic house of G. Gennert, 24-26 East 13th street, New York and 320 South Wabash avenue, Chicago.

The Seneca Camera Mfg. Co., of Rochester, N. Y., is considered by all camera users as most progressive in the matter of advanced ideas in camera construction, attachments, and accessories.

Among the many products of their experts are Seneca Simplex Plateholder, Seneca Adjustable Plateholder, Seneca Film Pack Adapter, Seneca Multiplying Attachment, Seneca Double Sliding Division, Seneca Revolving Back and Seneca Reducing Back. Of these the last two are attracting considerable attention at this time.

The Seneca Revolving Back enables the Camera user to take vertical or horizontal pictures at will, without altering the position of the camera itself.

The Seneca Reducing Back is for use on New Improved Seneca View Camera, City View and Studio Outfit and Competitor Cameras to accommodate smaller plateholders.

A catalogue of Seneca Cameras and their accessories will be mailed free on request, if the reader will address the Seneca Camera Mfg. Co., Rochester, N. Y., and mention this publication.

☆ ☆ ☆

Mr. J. L. Lewis informs us that he has secured the sole agency for Utocolor which is color photography on paper, J. H. Smith's Process.

Utocolor is a P.O.P. for the manifold reproduction of autochrome and other color-screen plates, as well as of transparent colored objects of every kind, *i. e.*, window transparencies, Glacier prints, glass paintings, colored lantern slides, etc.

He expects to receive the first consignment of Utocolor shortly. Further announcement will be given in the Photographic Times. Booklets are now in the hands of the printer, which will be sent upon request.

TO ADVANTAGE OF AMERICANS.

"Changes in Mexican government to be felt here. Situation is unsettled. Business at low ebb," says Rochestrian who has been there, but government is anxious for re-establishment of confidence.

"Manufacturers contemplating the commercial exploitation of Mexico or the extension of plans already exploited, would do well to study carefully the political conditions in the republic, especially as these will affect the merchants, before proceeding to the execution of their plans," said William V. Moore, general agent of the Bausch & Lomb Optical Company, who has just returned from the City of Mexico. Mr. Moore added:

"Proceeding to Mexico from San Francisco I was instructed to survey the field with a view to extending the business of the company, not only in Mexico but into Central America, should conditions seem to favor such an extension. Once across the Rio Grande river I expected to be confronted with the Federal Army of Mexico and to see some fighting here and there, so much having been said and written in the United States relative to the counter revolution. However, there was peace and quiet everywhere in the republic as far as I was able to observe, the only signs of extra precautions against attack being bodies of rurales, or state police, patroling the border and going to and from the interior towns. Persons returning from some of the isolated sections brought reports of outbreaks here and there, but these seemed to have been more the occasion of pure brigandage than revolution.

☆ ☆ ☆

BUSINESS AT LOW EBB.

"Arriving at the city of Mexico I found that outside of official circles the Americans engaged in business there were not at all disturbed by the rumors of General Reyes entering the city with his soldiers. In official circles, however, this tranquility did not seem to be so prevalent, some of the government officials with whom I talked being very cautious about advising me with regard to the commercial exploitation of their own country. And this precaution of the officials was reflected in the real existing business conditions in the City of Mexico. I found that the merchants there, chiefly American, German and French, were unwilling to consider new contracts involving heavy expenditures extending over a period of time.

"General business in the city, and in fact throughout all the cities of the republic is at an extremely low ebb and I do not think that conditions will be much better until the people have greater confidence in the stability of the new political regime.

"The manufacturers of Rochester are in evidence everywhere throughout Mexico and the name of our city is well and favorably known to the higher class merchants, as well as the restaurant and hotel keepers.

"The Mexican government has always been a very fair customer of our company, and the scientific apparatus found in observatories and educational institutions bears evidence of the satisfaction the officials feel in the progress made by the American manufacturers of scientific optical instruments.

"I was informed that the government will proceed slowly, but that there will be many changes throughout the country which will work to the ultimate advantage of American manufacturers. Mexico is rich in its mining and agricultural lands and, although millions of dollars have been taken from the earth, it is said that the country is merely scratched on the surface.

"Once on a working basis, with peace restored for a certainty, I believe that Mexico holds out great inducements to the American manufacturer, but he must be satisfied with gradual progress as the general conditions of the population must first be improved before the great results attendant upon such a change will be available."

☆ ☆ ☆

The Kodak Film Tank is one of the greatest trouble and time savers of any of Eastman Kodak Co.'s scientific apparatus. It not only makes the darkroom, with its many discomforts and inconveniences unnecessary, but it develops a film evenly and brings the image out clearly and in full detail. It is the result of long careful experiment and scientific thought.

The Photographic Times

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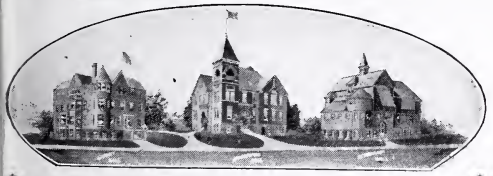
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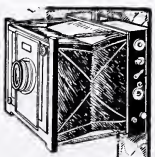
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WINTER EVENINGS BY FLASHLIGHT.

The above title and picture only suggest one of the many possibilities of the flashlight. Cosy little affairs at home with your friends about you, the chafing dish party, the foot warming after the coasting, skating or sleighing party, when a cup of hot tea or a little lunch warms up your numb body—all these are interesting subjects for the Kodak and Flashlight on a winter evening.

Eastman Flash Sheets.

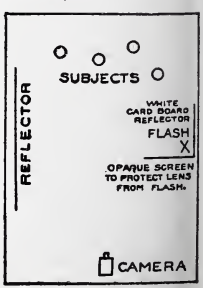
8 feet from subjects, 7 feet from floor.

White cotton cloth reflector.

Flash placed in angle of two large sheets of cardboard to act as reflector and to shield lens from flash.

Medium dark walls.

Subjects 25 feet from camera.



(1)

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Flashlight methods have been greatly improved in the last few years and the amateur has been quick to see its advantages in the making of artistic pictures.

One or two experiments are sufficient to demonstrate that the light is entirely under the operator's control and that it may be placed exactly where it is wanted in as great or as small a volume as is desired.

The element of certainty in making flashlights is due to the fact that the flash is the exposure. A large flash sheet used in a very small room will give an over-exposure, while too small a flash sheet in a large room will not give enough exposure. The correct amount of light is easily determined and it may be placed exactly where it is needed most and difused as much as is necessary. This is not always true of daylight. The light constantly changes and many interiors are very hard to illuminate even when conditions are at their best. With the flashlight, the darkest corners may be readily penetrated and the light directed at any desired angle.

If you have overlooked the evening flashlights at home, you have missed one of the most interesting of all Kodak pleasures. There is a charm to these pictures made about your own fireside that will add much to your picture record. Many examples of pictures, similar to the one here shown, made with the most convenient of all forms of flash material, the Eastman Flash Sheet, will be found in the booklet "By Flashlight" which is free at your dealers or will be mailed you on request. Diagrams show how all the pictures were made and the instructions may be readily applied to conditions in your own home.

COLOR THE PRINT.

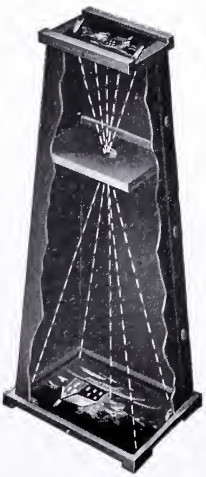
Velox Water Color Stamps

Convenient in form—simple to use,

IT DOES THE WORK.

The practical worth of an article can not always be judged by its cost. This is particularly true of the Brownie Enlarging Camera. It is not expensively made, but does the work required of it—is not fitted with an expensive lens, because an expensive lens is unnecessary. Stop for a moment to think what is required of the high grade lens used in a Kodak or other camera and the lens used in the enlarging camera.

The Kodak or other camera is of more or less value, depending on its lens equipment. The lens should be capable of producing an image with sharp definition over the entire plate, the various lens errors being corrected so that the negative is a true record of the objects photographed without the distortion of straight lines. Once this negative is obtained the enlarging lens must have the power of reproducing it in enlarged form on the positive sensitive paper. It is not possible for the enlarging lens to correct any errors of the negative. Its sole purpose is to reproduce with accuracy what is placed before it in the negative. It gathers the rays of light passing through this negative and projects them, as shown in the cut of the Brownie Enlarging Camera, on a flat surface of fixed focus.



This little camera will faithfully reproduce the most perfect negative, giving a perfect enlargement. If the negative has imperfections, it will as faithfully reproduce these imperfections. In a word, it fits the want and

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does the work as well as a more expensive enlarging camera. Its scope is only limited by its size.

The Brownie Enlarging Camera consists of a collapsible, light-tight cone with a holder at the small end for the negative and one at the large end for the Velox or Bromide paper.

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SNOW SCENES.

You have all admired the beauty of a snow scene—have stood indoors with a comfortable fire at your back and watched the snow flakes change the landscape from a dull somber tone to one of brilliant white, but have you taken advantage of the picture possibilities of a white winter?

Perhaps many of our readers do not live in a climate where a snow fall is an every day occurrence, but those same readers will take a Kodak and travel many miles to reach the snow of the mountains for a real winter outing and a series of snow pictures.

There is a fascination and beauty in the snow covered landscape that lends itself particularly well to the making of pictures. Familiar scenes are constantly changing with the coming and going of the drifting mantle of white. Unsightly objects are hidden from view or changed into grotesque forms by their icy covering. The most common scenes become most interesting and picturesque when compared with the same scene in its summer dress.

The winter scene is also most pliable as regards the possibilities of composition. In summer one must picture a path through the trees as the path really goes, but in winter it is easy to add the necessary lines of composition by beating a path wherever desired. Most important of all things in snow scenes however, are the shadows. There must be shadows to relieve the monotony of white, and the longer the shadows the greater will be the scale of tones or gradations.

One should be out with the early or late sun for the best effects, for when the sun is low, every tree, every hill, every rock or bit of uneven ground, with its covering of snow, casts its shadow, breaking up the mass of white, and it is the shadow that really makes the picture.

Night snow scenes are very novel if made where streets or parks are well lighted. It is advisable to have the nearest or brightest lights hidden from the lens by the limb of a tree or other obstruction, so that there will not be too much direct light shining in the lens. Where there are moving lighted objects such as street cars or motor cars, one should close the shutter while they are passing or a light streak across the picture will be the result. Night pictures will require exposures varying from five minutes to half an hour, depending on the amount of light.

Kodak Velvet Green is one of the most suitable papers for snow pictures. It prints by daylight and requires only the ordinary Velox chemicals for developing and fixing. Velvet Green should be used with snappy, brilliant negatives that would require the Special grade of Velox, and the exposure should be about two hundred times as much. It is printed by daylight with the same ease that Velox is printed by gaslight. The shadows are a rich carbon green, the highlights remaining white. Eastman Ferro-Prussiate is also well suited to snow scenes.

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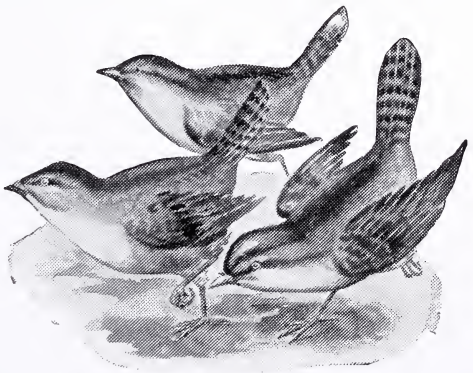
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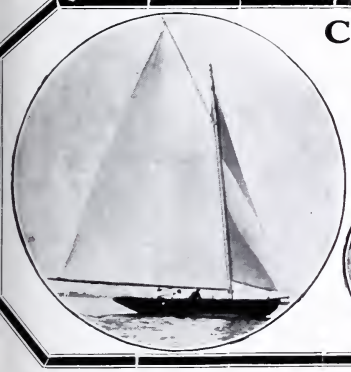
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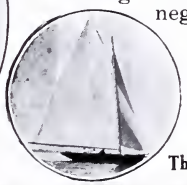
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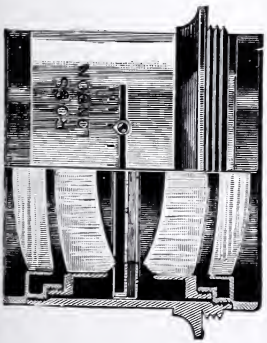
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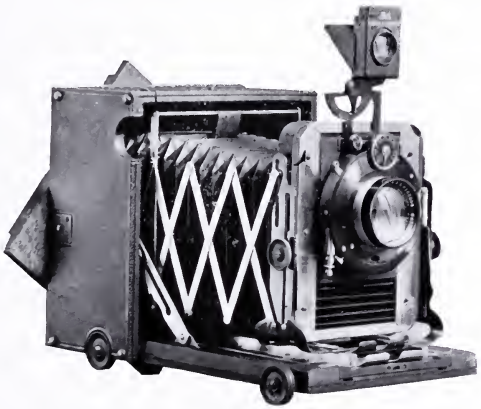
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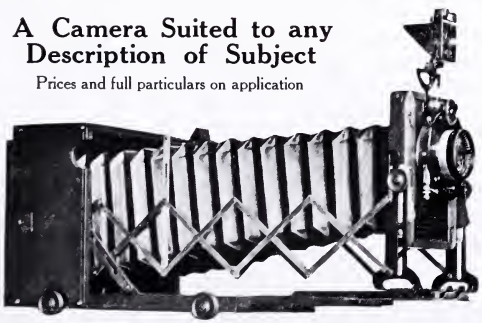
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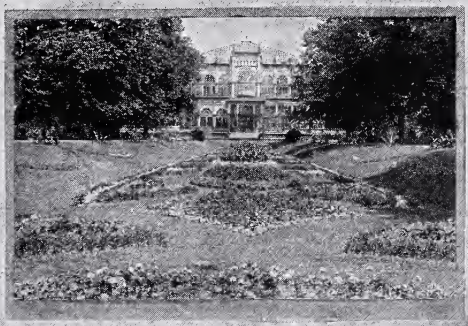
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The Point of Interest
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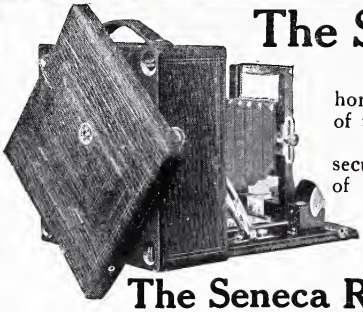
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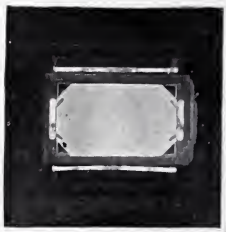
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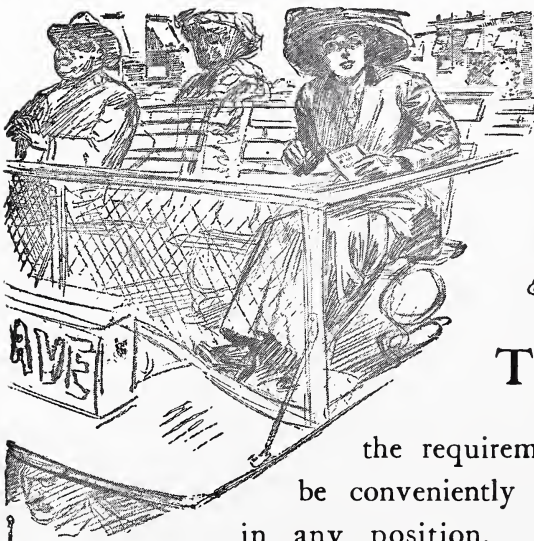
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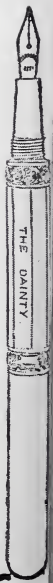
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WAITING WIND AND TIDE — *Harry D. Williar*

The Photographic Times

VOLUME XLIV MARCH, 1912 NUMBER 3

WINTER PHOTOGRAPHY

BY SIDNEY ALLAN.

Illustrated by A. L. Groll, W. B. Post, R. S. Kauffman, Mrs. J. E. Bennett, Yarnall Abbott, Dallet Fuguet, John G. Bullock and others



WINTER scenes always exercise a peculiar fascination upon the photographer. No matter how busy he may be at the time or how indolent he may have been in tackling out-of-door work, the first snowfall makes him feel as if he were obliged to rush out and take a picture. It is an irresistible impulse.

This may be largely due to the fact that nature has completely changed her color. All the tints of summer and autumn have vanished, the woods and mountains, roads and fields have become a monochrome. This may be another explanation why photographers are so fond of winter scenes. Monochrome, the subtle differentiation of light and dark, is the photographer's medium of expression, and the winter offers him proper landscape themes more readily than any other time of the year. They say, winter scenes are easier to take than others, and that they furnish the best material for beginners. I do not know about that. Line and form are much more pronounced in winter, and they are as difficult, if not more so, to handle as masses. Take, for instance, a wooded hill. In summer it is merely a mass of foliage in which paths and tree trunks disappear. After a slight snowfall you see the entire formation of the hill, rocks, crevices, slopes and footpath. Still there is one advantage. If you have an eye for drawing, you actually see more plainly than at any other time (by the natural contrast of black and white) all the lines and forms that you are



FEBRUARY (Fig. 8) *Yarnall Abbott*



SUN AND SNOW (Fig 3) *R. S. Kaufman*

going to depict. Some of the laws of composition are easier learned in winter.

There is, however, an indifference to beauty of line noticeable in all the work of the advanced pictorialists. In this instance I do not refer to the Secessionists, as some of our leading amateurs are more fanatic advocates of tone than even a Kasebier or Steichen. The winter photography shows this. Fig. 3, by R. S. Kauffman; Fig. 7, by Mrs. J. E. Bennett; and Fig. 8, by Yarnall Abbott, are tonal compositions. These are masses rather than lines. None of the three pictures would survive as a good composition if the details were clearly defined. "Snow," Fig. 7, has a fine atmosphere quality, which in this instance is produced by subtlety of values. There are only a few values, but the light gray of the snow and the dark grey of the shrubbery are so fortunate that they produce a harmony, something similar to two chords on the piano that mingle and produce one sound impression. Fig. 3 has nothing of this and the title "Snow and Sunlight," is badly chosen. The picture looks dull and the little there is of sunlight is so weak and faltering that it does not justify the title. The trouble is that this picture is a very ordinary view of an ordinary country road, and that the subduing of facts was the only remedy available to make it look a little more "artistic." Tone is frequently used for that purpose, to cover up defects and eliminate obtrusive details. Yarnall Abbott in Fig. 8 had selected a favorable viewpoint. There was an attempt at composition. But why subdue and blur it to the extent of indistinction.

Fine in line arrangement is one print only in our entire collection of illustrations, and that is Fig. 9, a decorative street by Dallet Fuguet. It utilizes



FEBRUARY DAYS (Fig. 11.) *A. L. Groll*



THE STREET (Fig. 9.) *Dallet Fuguet*



WINTER WEATHER (Fig. 1.) *W. B. Post*

the *vista* idea, the perspective view of a New York street seen from an embankment through a row of tree trunks. By focusing upon the lower part of the street he got the desired result, a middle distance full of detail and a simple foreground in which lines dominate. Also "Wintry Weather," by the veteran snow depicter, W. B. Post, has merit of lines. The buildings, ordinary suburban residences and stables, no doubt were of unwieldy shape, but he understood to utilize them in such a way that they become attractive to the eye. Fig. 10, "Trees in Winter," by John G. Bullock is merely an attempt at the parallelism of vertical lines. How much finer are the lines and the distances that separate one tree trunk from another in Fig. 9. In Fig. 10, the lines are entirely too straight and too much alike in character.

A heavy snowfall seems to be less conducive to express the sentiment of winter than a light flurry which merely covers the ground. An amateur once said to me that a winter scene with bare branches or shrubbery as for instance in Figs. 3, 6, and 8, where the trees show not the slightest trace of snow, did not appeal to him. It did not look like winter. True enough, Fig. 4 has more the feeling of true wintry weather, and yet it is apt to clog up the beauty of forms. The drawing is lost. Fig. 5 is a good example of this. The entire area of the picture becomes spotty, there is no chance of line expression,



SNOW (Fig. 7) *Mrs. J. E. Bennett*

not even of contrast and juxtaposition of masses. It is impossible to make a real picture of such a theme. A heavy snowfall is also apt to spoil the foreground. The snow on the ground in Figs. 4, 5, and 10, is hopelessly monotonous. It is better in the Kaufman and Yarnall Abbott prints, but in both instances it is produced by the unevenness of the road. It is not the soil itself. And the soil is so interesting after a light snowfall. All the undulations and curious formations are indicated and the brown of the earth or heaps of foliage show through the thin cover. Fig. 7 is good in that respect. All this is lost when the snow is several feet deep. The wind is then the only helpmate of the pictorialist. In Fig. 6 we see how the wind piled up the snow against a stone fence. This natural architecture furnishes the main interest of the picture, but the background, with the exception of the beech tree, is bad, merely a confusion of branches. Here blurring would have helped, a dark mass would have been better than this jumble of lines. Beautiful in this respect is Fig. 2, "Snowdrifts," by W. B. Post. The wind and deep dry snow have obliterated the original character of the ground, the field looks like a tract of snow in the arctic regions, but there is enough variation in the surface to make it interesting. The long shadow in the middle distance is the main factor in the making of the picture. The blurred distance has no definite shapes to show, but is so delicate and so suggestive of detail that it helps the large plane of white which covers more than five-eighths



TREES IN WINTER (Fig. 10) *John G. Bullock*

of the area. Pronounced detail or clearly outlined shapes were impossible with this combination.

The most interesting view of winter I think can be obtained on a sunlit forenoon after a snowfall that has merely sprinkled the trees with thin and occasional patches of white. It is such a morning as I write this article. From my window I can see the woods—but they do not particularly gain by accentuation of white, it is the single tree that benefits most. The branches in Fig. 10 perhaps explain better what I mean. The design of the branches is preserved, but the irregularity of the smaller twigs is subdued into a more perfect harmony.

The skies in these pictures are all shockingly bad. Why, in most cases they are absolutely blank. And wintry skies are so beautiful at times, they have such an ethereal shimmer. But one has to select the right day and not mind the cold in quest of the beautiful. Most amateurs seem to be enthusiastic merely for a day, and afterwards prefer the warm shelter of their home to any excursions in snow-covered brush or hill paths when the thermometer registers below zero. The painter, of course, has a decided advantage in this respect. He remembers a certain atmospheric effect and simply prints it in from memory. It is for that reason I show the "February Days," Fig. 11, a clever sketch by A. L. Groll. Forms have been merely indicated, but there is despite the somewhat slipshod treatment a delicious feeling of wintry weather. This is what I miss in the photographs. They lack freshness. There are too

many dull and uninteresting passages. There is too much white in most of the pictures. In Groll's painting the darker masses dominate the composition, and it merely suggests winter as well as the white tonalities of Post.

Our illustrations, nevertheless, show considerable variety of treatment. A few of them, true enough, teach no lesson. They are merely ordinary views without any preconceived idea, and forethought and a distinct intention of what one wants to take are absolutely indispensable in picture-making. Figs. 1, 2, and 7, 8, 9, 10 show this ambition, even if it is not carried out successfully. Mrs. J. E. Bennett reveals to us the beauty of tone in which all other qualities are dissolved. Dallet Fuguet in his street exploits the vista idea and emphasizes the importance of line relation. The most valuable lesson, however, is taught by Post, who utilizes the high horizon line, and the balancing of large planes against minor one at a ratio of about 5 to 1. He is a master of values, he suggests the delicacy of snow better than any photographer I know, and I consider his "Snow Drifts," Fig 2, one of the masterpieces of winter photography. Its range of expression may be limited, but the photographer has a manner quite his own, a rare accomplishment in photography as well as in all other phases of artistic endeavor.



SNOW DRIFTS (Fig. 2) *W. B. Post*

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BY MATTHEW WILSON.

PART II.

(2) THE ACTION OF LIGHT ON THE URANIUM COMPOUNDS.



THE change produced by actinic agency in the constitution of the uranic compounds in the presence of organic matter seems to have been first observed by C. J. Burnett about the middle of last century. The action, resembling in this respect that produced on the cupric and ferric salts, as also on many compounds of the higher oxides of other metals, is a deoxidizing one, the uranic oxide, or, in the absence of oxygen, its halogen equivalent, being reduced to the uranous state.

For photographic purposes uranic nitrate is the salt that is usually employed in the preparation of the sensitizing bath. A solution of 25 grains of the crystallized nitrate to each fluid ounce of water has been recently recommended for use. The paper, it is stated, should be sensitized by floating for one minute on this bath, and then dried in the dark in the usual way. To produce an image by printing-out, a somewhat prolonged exposure will be found necessary, from eight to ten hours in sunshine being usually required On the completion of the operation, the print must be treated with a suitable intensifier with the object of imparting the requisite degree of vigor to the faint brown image due to the partial reduction of the uranic salt. A two per cent. solution of potassium ferricyanide may be conveniently employed for this purpose, in which case the effect of the intensifying treatment will be the production of an image of a rich crimson hue. After rinsing in several changes of water the intensified prints should be fixed by immersion for five minutes in a 2 per cent. solution of sulphuric acid, and afterwards carefully washed. If a few grains of ferrous sulphate be added to the acid fixing bath, and the prints be allowed to remain in the solution so prepared from ten to fifteen minutes, the image, with the exception of the highlights, which wil assume a pale sky-blue tint, will gradually change in color from crimson to deep green. Very artistic prints of woodland scenery and landscape subjects of a similar character may be obtained by toning in the manner thus described. When the ferrous sulphate bath is employed, the fixing of the prints, it is hardly necessary to say, is accomplished simultaneously with the toning process.

The intensification of uranium prints, as has been pointed out by Burnett and others, may also be effected by means of gold and silver solutions. If a solution of chloride of gold be employed, the metal will be deposited in a state

of division precisely similar to the deposit which is obtained in the process of toning a silver print, and a purple or purple-brown image will accordingly be produced. Nitrate of silver, on the other hand, will, it is stated, produce a brown image when used as an intensifier. In cases in which gray or black tones are specially desired, it seems probable that a solution of potassium chloroplatinite might be found equally efficacious for intensifying purposes.

The red prints obtained by the ferricyanide process of treatment are, in like manner, capable of being readily toned to any desired color by the action of suitable baths. The following formula for the production of blue-black tones has been recommended by Mr. H. Abbott:

Ammonium sulphocyanide	30 grains
Chloride of gold	2 grains
Water	10 ounces

A few experiments were recently made by the writer with the double object of discovering new methods of intensifying uranium prints and of ascertaining, were this found to be possible, some mode of increasing the sensitiveness of the paper to light.

In the course of the investigations made with reference to the first mentioned subject of inquiry, a weak aqueous solution of sodium picrate was employed. A uranium print, immersed, on its removal from the printing frame, in this bath, was found, after about fifteen minutes' treatment therein, to have gained considerably in density, the color of the intensified image being a light yellowish brown. A second similar print was treated in a weak intensifying bath of gallic acid, prepared by diluting with an equal bulk of water when required for use, a stock solution of the formula given below:

Gallic acid	120 grains
Borax	100 grains
Water	5 ounces

The addition of the borax, it should here be noted, was made for the purpose of rendering the acid readily soluble, and also for that of retarding the rapid process of oxidation to which solutions of the latter are peculiarly liable. A stock solution prepared in this way may be kept for several days without turning brown, provided it be carefully preserved from the action of the air.

The gallic acid bath was found to act admirably as an intensifier, the image produced by its means being of a rich deep brown color. The process of intensification was a rather slow one, a circumstance which was, however, deemed advantageous, inasmuch that it enabled the operations to be readily suspended at the stage when sufficient density had been obtained. It was noticed that the brown deposit which was formed upon the substratum of the uranous image was somewhat granular in its texture, the granularity becoming more conspicuous towards the close of the intensifying manipulations. The resulting effect, however, was rather pleasing than otherwise, and conveyed to the eye something of the nature of the impression produced by a water color drawing. On the conclusion of the operations the print was well washed in several changes of water and dried. It was subsequently exposed to sunlight and



THE DESERTED PARK (Fig. 5.) *A. A. Nicolas*
Illustrating "Winter Photography."

diffused daylight for a period of several days, but failed to exhibit under this treatment any signs of further alteration.

As to the other object of the writer's investigations, it occurred to him, previously to putting the matter to the test of experiment, that the presence of a compound of nitrous acid in the sensitizing bath in conjunction with uranium nitrate, might accelerate the action of light on the latter by acting as an oxygen absorbent. Assuming sodium nitrite to be the compound specially selected for this purpose, it seemed to him likely that this would, on the exposure of the paper to sunshine, be converted into sodium nitrate at the expense of the oxygen lost by the uranic salt on its reduction to the uranous state. The equation representing the chemical change would, upon this assumption, be written as follows:

$$UO_3(NO_3)_2+NaNO_2=UO_2(NO_3)_2+NaNO_3$$

An aqueous solution of sodium nitrite of a strength of about 20 grains per fluid ounce was accordingly prepared, and a portion of this was employed to coat several sheets of paper, which were then dried by daylight as rapidly as possible, but without the application of heat. The paper was subsequently sensitized with uranium nitrate by coating in the usual manner, a ten per cent. aqueous solution of the crystallized salt being employed for that purpose. After twelve hours' drying in darkness, a sheet of this prepared paper was

exposed to sunshine under a negative. The result of the operations amply justified the *a priori* conclusions which had been hazarded as to the effect likely to be produced by the addition of the nitrite, inasmuch that a very marked increase in the sensitiveness of the paper to actinic action was found to be brought about by its agency. An exposure of about one-eighth of that formerly required was found sufficient to produce an image of excellent definition in its minutest details, and upon transferring the print to the ferricyanide bath, a fine red picture of normal density was obtained in the course of a few minutes. The experiment was repeated at intervals of a day or two with the remaining sheets of sensitized paper with equally satisfactory results, it being observed, however, that the longer the paper was kept before printing the less readily was it affected by the subsequent exposure. Possibly this was due to a partial oxidation of the sodium nitrite, the change having been brought about in darkness by the gradual absorption of oxygen from the atmosphere.

(3) THE ACTION OF LIGHT UPON THE IRON COMPOUNDS.

As regards the employment of iron salts in photographic printing, it is unnecessary in this place to give particulars of the theory and practice of the platinotype process in its various forms, as the necessary information may be easily procured by a perusal of any of the standard textbooks. The same may be said of the cyanotype or ferroprussiate printing process, which seems to have been first described by its inventor, Sir John Herschel, in 1840, and of which, also, several distinct modifications are to be met with in current practice. The fact is, however, worthy of notice, that the presence of the iron compound, ammonio-ferric citrate, the salt commonly employed as sensitizer in this process, is not essential to the success of the operations, and may, in actual practice, be dispensed with if potassium ferricyanide be added to the sensitizing bath to supply its place.

A simple form of sensitizer for the preparation of cyanotype paper, was devised by the writer in 1896. The bath in question consisted of a mixture of aqueous solutions of potash alum and potassium ferricyanide. Paper, when sensitized with the combination in the ordinary way, was found to give very satisfactory blue prints, the exposure necessary for the production of an image of full density being, however, somewhat longer than that usually required in this process. A peculiarity about the prints produced by means of this bath deserves to be specially mentioned on account of its practical importance. It was found that if these on their removal from the printing frame were immersed, after rinsing in water, in a weak solution of cupric chloride, they assumed in the course of a few minutes a rich purple hue. For the sake of comparison, prints produced on paper sensitized in the ordinary cyanotype bath were afterwards treated in the same way, but no visible change ensued, the original blue color remaining unaltered.

Another useful iron printing process, for which photographers are likewise indebted to Herschel, is that known as the chrysotype. Paper is sensitized with a ferric salt and exposed to light beneath a negative until a distinct image makes its appearance. The print is then transferred to an intensifying



AFTER A HEAVY SNOWFALL (Fig. 4.) *A. A. Nicolas*

Illustrating "Winter Photography."

bath consisting of a weak solution of chloride of gold. In the reaction which ensues the gold salt is decomposed by the newly formed ferrous compounds which constitute the image, and the metal is gradually deposited on the exposed portions of the print as a dark brown film, the color of the superstratum thus produced varying in intensity from point to point according as the reduction has been more or less completely effected. When ferric chloride is the sensitizer, it is, of course, reduced to ferrous chloride during the printing operations. Upon intensification, the latter is reconverted into the ferric salt by union with the chlorine that is lost by the auric compound on its decomposition. The latter part of this series of changes is represented in the annexed equation:

$$2AuCl_3+6FeCl_2=2Au+3Fe_2Cl_6$$

For purely technical purposes a ferric oxalate sensitizer will, however, generally be found to give better and more uniform results than can be obtained by the use of the chloride, besides which, the greater sensitiveness of the former must be taken into account in practice as constituting an additional advantage.

For the production of purple-black prints in this medium, the ferrogallic process, invented by Poitevin, and described by him so far back as 1859, gives good results in skilled hands, and the pictures so obtained are fairly permanent. Several formulæ have been given for the preparation of the paper, the variations suggested by different operators being, however, comparatively unim-

portant. The following baths, which have been tested by the writer, and found to act well, may be recommended for use:

Solution No. 1.

Ferrous sulphate	22 grains
Tartaric acid	22 grains
Ferric chloride	44 grains
Water	1 ounce

Solution No. 2.

Gelatine	38 grains
Water	1 ounce

The gelatine should be allowed to soak in the water for several hours, after which the vessel containing it should be transferred to a water-bath and heated until solution is effected.

For sensitizing purposes, equal volumes of these solutions should be taken, any insoluble residue formed upon their admixture being allowed to subside, and the clear liquid thereafter decanted into another vessel. A further application of heat will probably be necessary at this stage, and when perfect fluidity has been obtained, the printing paper should be coated as quickly as possible by means of a hogshair brush, with the warm mixture. As the printing qualities of the paper are apt to be impaired by keeping, it should be used, when dry, within the next twenty-four hours.

In order to produce a positive image, the paper must be exposed to light beneath a positive instead of a negative. A bleaching effect will be found to manifest itself during the operations, the original yellow color being gradually turned to a pure white under the highlights of the subject. With a positive of average quality, an exposure of about two hours in sunshine will usually be required to bring out all the details of the subject. As, however, it is somewhat difficult to decide with exactitude the point at which the printing operations should be suspended, the safest plan is to expose until the portions of the print representing the highlights are completely bleached.

The picture must next be intensified by immersion in a bath of the formula given below:

Gallic acid	31 grains
Oxalic acid	5 grains
Water	10 ounces

In this solution the image will assume in the course of a few minutes a rich deep purple hue, approaching to black in the deepest shadows. On the completion of the intensification the print should be soaked in several changes of water, and dried by pressure between leaves of blotting paper.

A pretty pink negative image may be obtained in the following way: A saturated solution of feric chloride is diluted with an equal bulk of water, and mixed with a moderately strong aqueous solution of aluminum sulphate. Paper having been sensitized with the mixture and dried, the exposure to light is made under a negative in the usual manner. The visible image so produced is obtained by the bleaching of the yellow ferric sulphate on its conversion



AFTER A SNOWFALL (Fig. 6.) *Anonymous*
Illustrating "Winter Photography."

to the corresponding almost colorless ferrous salt. The print, on its removal from the printing frame, is immersed in a bath containing alcohol for twenty minutes in order to dissolve out the soluble ferric compounds. The ferrous sulphate, being insoluble in alcohol, remains behind. The picture must then be dried by means of blotting paper, and transferred to the gallic acid bath, wherein it will instantly assume a uniform jet-black color. This black print is treated in turn with a 10 per cent. aqueous solution of oxalic acid, in which it is allowed to remain until it is bleached to a uniform faint pink hue. When this stage is reached, a quantity of the gallic acid solution must be gradually added to the oxalic acid bath by successive small increments, care being taken to add no more than is necessary to effect the full intensification of the image. The outlines of the picture during these operations will slowly reappear, the color of the intensification deposit being a delicate rose pink. The print should not be allowed to remain too long in the bath, as the free acid soon begins to exercise a solvent influence upon the image when this has attained its maximum density. On its removal from the solution the picture should be well rinsed in several changes of water, the first being made weakly alkaline by the addition of a few drops of strong ammonia. The print may then be allowed to dry by exposure to the air.

(4) THE ACTION OF LIGHT UPON THE CHROMIUM COMPOUNDS.

It seems highly probable that many of the salts of chromium, and, in particular, the chromic compounds, undergo chemical change on exposure to actinic action. With the exception, however, of the chromates, a distinct

group of bodies derived from the acid-forming chromium trioxide, CrO_3, little or nothing is as yet known respecting the nature of these hypothetical reactions. Since 1852, indeed, the year in which Fox Talbot patented the process upon which all our existing chromium or so-called "carbon" printing processes are based, no serious attempt seems to have been made in the direction of investigating the photographic properties of the salts of this metal.

The prospects being thus very promising for the attainment of new and instructive results in this particular field of inquiry, a few experiments were recently made by the writer on the behavior of certain of the compounds of chromic oxide. The first experiment of the series was made with paper which had been sensitized with a concentrated aqueous solution of chromic nitrate. The result, however, was unsuccessful, for although a sheet of the paper so prepared was exposed under a negative in sunshine for upwards of forty-eight hours, no signs of any image could afterwards be detected. In order to ascertain if any latent image had been impressed, pieces of the exposed sheet were then treated in succession with solutions of various reagents with a view to the development of the picture. No certain evidence of the formation of such an image was, however, forthcoming. Further experiments with the nitrate were abandoned by reason of its objectionable deliquescent properties, it having been found that the sensitized paper could not be preserved in a perfectly dry condition during the printing operations.

The behavior of the double oxalates of chromium and potassium under the influence of light was the subject of the remaining experiments, in the course of which some instructive results in regard to the photographic properties of these compounds were obtained. The two salts which were selected for use as sensitizers were the red double oxalate, known as monopotassic chromic oxalate, and possessing the chemical formula K2Cr2 (C2O4)4 8H2O, and the blue compound, tripotassic monochromic oxalate, represented by the formula $K_6Cr_2(C_2O_4)_6 . 6H_2O$. As these, owing to their rarity, could not be procured from any dealer in photographic chemicals, it was found necessary to prepare them synthetically by combining their constituent salts in the proper proportions.

For the preparation of the red oxalate, 76 grains of potassium dichromate and 220 grains of oxalic acid were dissolved in water in a glass flask. During the process of solution, oxygen was rapidly disengaged owing to the decomposition of the trioxide of chromium, water and the double oxalate being simultaneously formed. The equation representing the change in question may be written as follows:

$$2K_2Cr_2O_7+8H_2C_2O_4=2K_2Cr_2\ (C_2O_4)_4+8H_2O+6O.$$

The temperature of the contents of the flash was gradually raised to the boiling point, the application of heat being continued until the liberated oxygen ceased to be given off. The solution of the double salt was then poured into a basin and set aside for a few days to crystallize. The blue oxalate was obtained by means of a precisely similar series of manipulations, by dissolving in water 76 grains of the dichromate, 92 grains of neutral potassium oxalate, and 220

grains of oxalate acid, the solution being boiled as before in order to expel all the liberated oxygen.

For sensitizing, there were employed (1) a solution of the red oxalate, containing 30 grains of the crystals per fluid ounce of water, and (2) a solution of the blue oxalate of a strength of 50 grains of the salt per ounce. As usual the solutions were applied by means of a brush, the coating process being repeated after the expiry of a few seconds so as to ensure the production of a more sensitive and uniform surface.

A sheet of paper sensitized with the above mentioned solution of the red double salt was exposed to light as usual under a negative. On the expiry of only one hour's printing in diffused light, a weak but remarkably distinct *negative* image was found to have been impressed, the details of the picture having been produced by the partial bleaching of the yellow sensitive surface. The intensity of this image was considerably increased by a further exposure of some hours' duration, after which, however, little or no change was noticeable in its appearance.

An ammoniacal solution of cupric sulphate of a strength of 50 grains per ounce was next prepared, and the print was immersed therein. A slight increase in the intensity of the image was at first observable, but after a few minutes had elapsed the sensitized side of the paper assumed a uniform bluish green tint. In order to allow ample time for any intensifying effect to manifest itself, the print, after this stage was reached, was allowed to remain floating in the bath for twelve hours. On re-examination at the expiry of this interval, it was found that although the original negative image had been completely destroyed, its place had been taken by a light sea-green positive picture of considerable delicacy and beauty.

In the course of some additional experiments which were made with paper sensitized with the red oxalate, the use of a freshly-prepared sensitizing bath was found to be absolutely essential to the success of the manipulations, particularly as regards the length of time required for the printing process, the operations being apt otherwise to be unduly prolonged.

Paper sensitized with mixed solutions of the red double oxalate and sodium nitrite was next experimented with. The results showed that the sensitiveness to light was slightly increased, in addition to which the color of the image produced by printing-out was somewhat deeper in tint than that obtained with the simple oxalate sensitizer.

Paper sensitized with the blue oxalate was found to bleach similarly under a negative when exposed to actinic action. The change, however, was effected much more slowly than in the case of the red oxalate, about three hours' exposure in diffused light being necessary to produce a visible image.

Paper so sensitized, having received an exposure of eight hours, was afterwards treated with certain solutions with the object of intensifying the almost colorless chromous deposit.

An aqueous solution of neutral potassium chromate, when employed in this way, gave a faint gray image, whilst a weak picture of a greenish hue was produced by the use of a bath of ammonium sulphocyanide.

Finally, sodium nitrite was again added to the sensitizer, and paper having been duly sensitized with the mixture and dried, was exposed as usual. No change in the appearance of the print that could be attributed to the presence of the oxygen absorbent could be detected during the printing-out stage, but it was afterwards found that if the almost invisible picture were treated with mixed solutions of sodium sulphide and ferric chloride, a brown image, probably due to the formation of a deposit of ferrous sulphide, could be produced at will, provided the intensifying operations were somewhat prolonged.

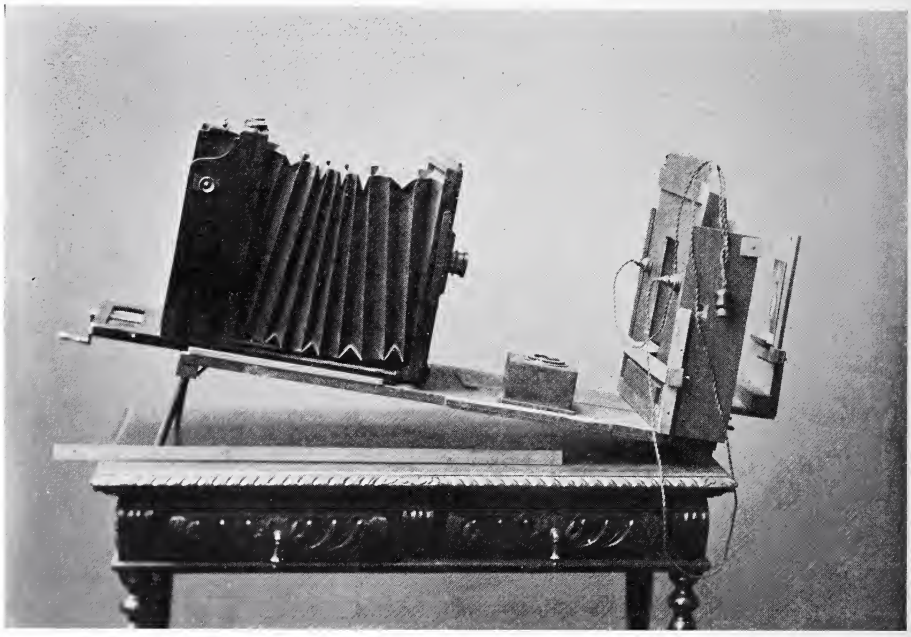
THE EVOLUTION OF A COPYING STAND

BY G. WATMOUGH WEBSTER.

With Three Illustrations.



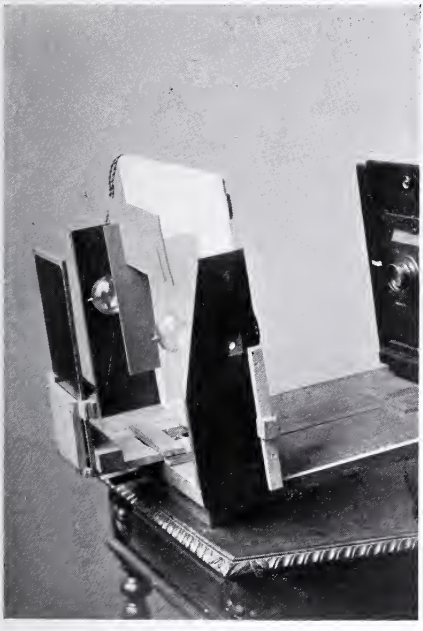
MANY years ago I described in these columns with an illustration, a combined copying board and table that I had in use in my Chester studio; it had many little convenient arrangements which rendered it invaluable in every day practice, and I had it in use for many years until I built a special room for copying and enlarging. I am inclined to think that nowadays there is less of that kind of work brought to the studio than when the era of glass positives was not so far removed as it now is; yet many are the occasions when an old and valued picture, memento of some dear one is brought to be copied if only for a few "cabinets," or less often, to be enlarged for framing. At another branch studio that I had this kind of work was at first usually relegated to Chester; but soon it was found convenient not to send it away at all. So whenever an old glass picture, carte de visite, or cabinet was brought to be copied, we simply rigged up a temporary arrangement—merely a deal board which we happened to possess. It was placed on a table in the studio, an old 12 x 10 folding camera of solid construction—a legacy of wet-plate days—screwed down by a tripod screw to one end of the board, and at the other end an old well-built, square packing box. The photograph was pinned to the latter by drawing-pins, and a little to-and-fro motion of the box brought it into the correct position as regards enlarging or reducing. The screwing down of the camera wasted time, so the method was adopted of fastening a side strip of wood at the camera end of the board, and another in front of the camera, as a stop to push it against. In setting up the affair all that was wanted was merely to open out the camera and push it against stop and side piece, when at once it was square with the board. It was found also that time was wasted in going back and forwards between camera and subject, hence the next improvement was made. A long groove was cut from end to end of the board and half way through it, and a second groove half the width cut through the board. In the wide groove was placed a wood lath that slid along easily; to this lath the box was fastened by a screw (with a head that was not too wide



(Fig. 1.)

to pass along the narrow groove). At the camera end a small wooden handle was attached underneath; and thus while examining the image at the focusing screen the object could be brought nearer or farther away by simply pushing or pulling the handle below the board while examining the image. This was found a great time-saver. The copying or enlarging became so frequent that it was decided to do the work in the darkroom as it was rather a nuisance, just when everything was fitted up and the exposure found to have to unship it because of sitters. The darkroom is a very narrow one, but, by rearranging the filling-in bench, space was just found to set up the board. All copies were then made by artificial light. At first two incandescent globes, one on each side of the print, were supported on home-made stands constructed of platinum tins sliding telescope-wise in one another and fastened to a wood base. The objection to this plan was that the distance of the illuminant constantly varied as the object was moved to and fro. To remedy this a light framework was attached to the box and the lights suspended from it, a method that was a considerable improvement. The next step was to alter the box so as to enable an enlarged negative to be taken through the medium of a transparency. A square hole was made in the box and the transparency or negative supported in front of it by means of grooves or slots made of thick cardboard. A white reflector was placed behind, and illuminated by the two lamps. When the picture to be copied was not too large nothing could have been better.

The business in this direction still increasing it was decided to add to the conveniences. In lieu of the old box the services of a joiner were requisitioned to make a more elaborate arrangement. The explanation will be better by the aid of diagrammatic photographs.

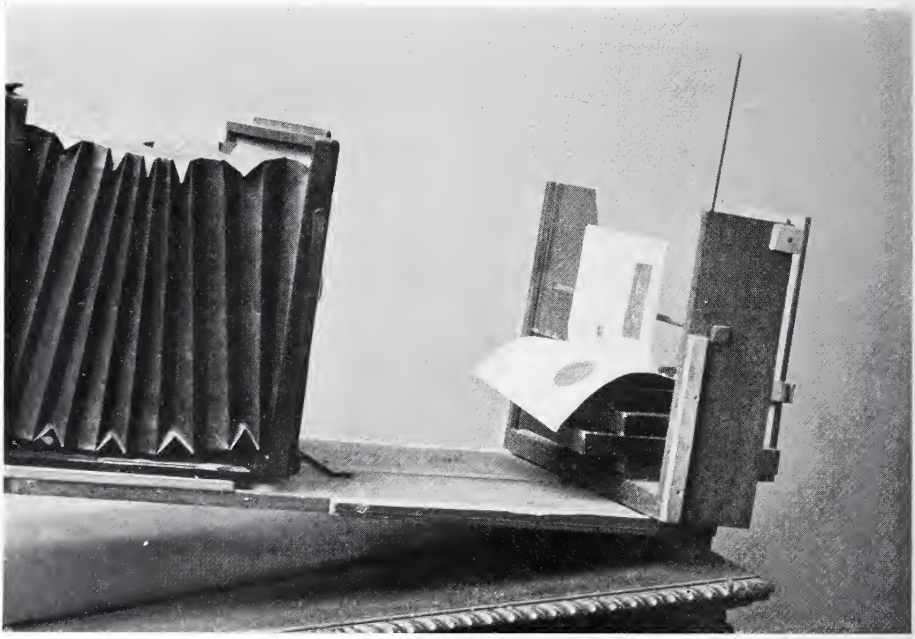


(Fig. 2.)

Fig. 1 shows all the improvements. The camera is there pushed against stop and side piece. The substitute for box is shown and may be explained as being like a box with top and bottom and one side removed. Close to the front are grooves into which one may slide either a piece of plate-glass (of which more anon), or a wooden board. To the wooden board any picture may be attached and lighted as described. At this stage it was found a great advantage to tilt the board; this is seen in the figure and was simply done by boring two holes in the wood clamping piece and fitting into them two wooden pegs as seen in the photograph. The beauty of this arrangement is that in copying there is no need whatever to pin the picture down. All that is required is a ledge to rest it on. That is seen above and it is made movable up and down by the ends being hooked, as it were, and slidng up and down the side pieces shown. If made fairly tight it will grip when put slightly askew; but as this would put the print out of square a small screw just visible in the photograph was inserted to tighten it up when truly placed. Then came the question of the transparency again. Another whole-plate sized aperture was cut into the removable board and supported in position on this ledge, no fixing being required, though both sideways and up and down motion were possible. It was found a trouble to fix a print up when this aperture remained so a sheet of glass was cut to fit the groove in lieu of the board, and pictures copied through it, being kept in position by wedging up to the glass again, a long screw passing from side to side to keep the framework taut (seen best in Fig. 2). Hence a secondary board was attached to the bottom of the box-framework and projecting from the back, as seen in Fig. 1. It was made movable to and fro; but in practice it is always kept fixed in one position, and the object or picture to be copied is visible through the aperture in the board.

The small square object seen between camera and box in Fig. 1, is an extra front which is used when object and camera are brought unusually close together for enlarging direct. This front passes through the aperture in the board.

We now come to the illumination of the print under the new conditions. The loose electric globes were then difficult to manipulate, so, finally, the globes were attached to the front board as shown. Two holes just large enough to admit a portable electric globe socket were pierced with a brace and bit; the



(Fig. 3)

sockets were passed through from the front, and the lamps fitted in from the back. This is clearly seen in front in Fig. 1 and from the back in Fig. 2, the flexible cord for attaching to a wall socket being also shown. The back of the board is white to reflect all the light possible on to the print. But as when fixed up for a transparency fitting against the main aperture the incandescent globes would shine directly sideways on the transparency, and illuminate the shadows too strongly. To obviate this two cardboard wings were attached to screen it and yet not interfere with the lighting of the picture placed on the secondary board, which also is fitted with a ledge having up and down motion like the larger one at front.

It may be pointed out here that when this apparatus is used in the dark-room the simple expedient of tilting it forward is invaluable. I never use a loose focusing frame. The dark slide is never removed and its shutter is always kept open. The slide is fitted with the usual inner frames of all needed sizes, and when copying a print, etc., the proper frame is put in, and, instead of a plate, a piece of obscured glass is inserted into the dark slides. Focusing done, the white light is turned off and the red one, the sensitive plate put in its place and either the back of the slide fastened up or a dark cloth merely thrown over. The exposure made, the plate can be at once picked up and placed in the developer without a moment's loss of time—no need for springs in the back or, indeed, anything—the plate is put in, and there it sticks by its own weight.

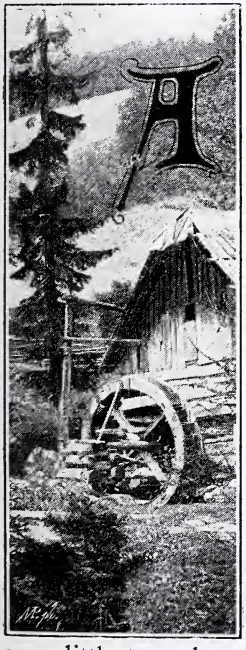
Fig. 3 is given to show a very useful application of the stand.

It often happens that an illustration in a book is required to be photographed. This is rather a time-taking affair if no special appliances are at

hand. With this apparatus there is not the slightest trouble. I have described the fitting of a sheet of plate-glass in the grooves of the skeleton box. Illustration Fig. 3 shows a copy of the PHOTO TIMES open and fixed up for copying. The sheet of glass is lifted up, the book, open, placed at the right height so as to have the illustration just opposite the lens, and kept at the right height by some simple packing—in this case a number of plate boxes, and then the glass is allowed to drop down on to the opposite page as shown when, if necessary, the portion of the book adjoining the illustrated page can be wedged tight against the long iron screw plainly visible. I hope I have made my description clear, for the apparatus depicted possesses conveniences that none at present on the market so far as I know, possesses. I may further say that, though I do not profess to have more than a nodding acquaintance with a joiner or cabinet-maker's tools, the whole affair except the skeleton box was made by myself from time to time in spare moments, and could be easily duplicated by anyone.

THE STUDY OF PICTURES

BY WILLIAM H. BLACAR.



ALL of us who take the photographic magazines, and rely on the study of the pictures in them for a large part of our education in this line, must often have asked ourselves the question: "How much of this picture which we are studying was gotten on the negative by straight exposure and development, how much is due to the work on the negative in the way of retouching, dyeing the film, etc., and how much is due to manipulation of the paper in the different processes of printing? And then the question comes up, "Does this half-tone represent the picture as it really is in the photograph or is it better or worse than the original?"

If we really want to learn from these pictures we must take into account all these questions; and they are just as important as the data which is given with many pictures as to the stop, time of day and year, length of exposure and actinic light at the time of taking.

If we see a good example in our magazine we may well admire it and in looking may be helped to better appreciate good pictures. But we are helped very little to make good pictures for ourselves. What we want to know for certain is, was the original as good as this reproduction. When we attempt to get certain effects on our negatives which we see on the finished print and fail, we want to know if the maker of a certain picture got the effect on the negative, or if he "faked" it; for if he could get the effect on the negative we are encouraged to try for it ourselves, knowing that it is a possibility.

If we are to learn anything from these pictures should not the editors give us a picture which is as far as possible an exact copy of the original, and if they cannot make it so by straight "half-tone" should they not retouch and fake in any way necessary to accomplish this end. We want to see the original, but as we can't do that we want to see as perfect a copy as possible without regard to how it is made.

I am aware that many will say that if they once commence this faking there will be no knowing where it will stop and that the editors will retouch and fake till the result is far better than the photograph and that we shall then never know "where we are at." I would say in answer, that we must continue to take their word for it, even as we are doing now; for, as a matter of fact, we don't know whether they are doing it now or not.

Another thing we have got to reckon with in trying to learn from these pictures is whether the photographer who made them did or did not get them perfect in technique and composition.

Take the question of composition, for instance; let even an artist go out and select the place for the camera, to get what he thinks is the best composition for a landscape picture and see how difficult it is for him to get the exact spot for his camera.

Do you suppose that the artist will see and take cognizance of everything in the scene? Won't he find on the negative some things which he is sorry to see there? Have we not all had this experience?

These pictures are not only imperfect, but they are not even what the maker expected them to be when he saw them on the ground glass. Every one of them is more or less of a surprise to the maker, and he sees beauties and blemishes in the finished print which he never dreamed of when gazing at the picture on the ground glass.

Recognizing that no pictures are technically perfect let the editors give us the best reproductions they can, and then let us study and criticise them. As there is some good in all, let us emulate the good; and as there is some bad in all, let us try and avoid the bad.

Don't take my word for it that all pictures are imperfect, but just examine for yourself very carefully and read what the best artists say about these much praised pictures; perhaps there may be others who believe that pictures should be studied as well as admired.

PORTRAITURE IN SIBERIA

BY L. LODIAN.



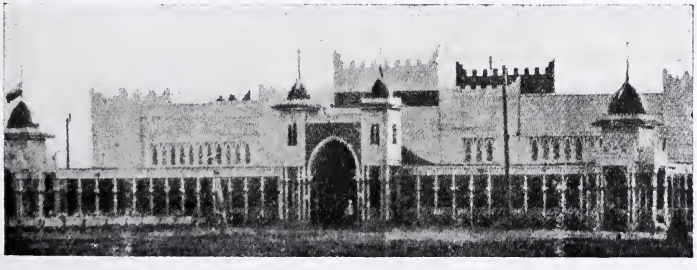
DURING journeyings, meandering hither and thither across Russian territory, from the Pacific ocean in the extreme east to the Baltic in the west, the writer was often in converse with photographers of the vast Slaf domain. And a pretty mixture they are, too! They have some queer things and experiences to relate,—" 'nuf to fill volumes." I'm going to tell half-a-dozen of them briefly in this short sketch.

The correct spelling is Cibiria, from Russian Cibipia (their p being sounded like our r). The name is derived from the root-wood Cibip (pronounced Cibir); this was the name of a Tatar town, sacked and destroyed by the invading Slaf some centuries ago. Remnants of that ancient Tatar civilization are still to be seen; far remote from the road, on the route between Ekatepinbypr, and Tiomen, there are still vestiges of what was once the flourishing city of Cibip—an emporium of humming industry in the days of the warriors Yengis Khan and Tamarlane ("the white captain").

The first photographs made of Sibiria were in the '60's, when a steady influx of exiles (the crop of the Polish insurrection of '63), continued over the trans-Ural to the vast steps or prairies of western Sibiria. Many of these political prisoners were of some professional calling—portraitists, chemists, lithographers, so on,—and had to turn their hand to what they could in their new surroundings. For they were allowed, in hundreds of cases, the liberty of the town and district. These were types of men, then, who produced the initial camera results in Sibiria.

PHOTOGRAPHY AT A SIBIBIAN EXPOSITION.

Sibiria has recently closed its first small-scale "international exposition." This was open all summer and fall at the town of Omsk, western Siberia. The exhibits were chiefly Sibirian or Russian, of course; and all that the



THE FIRST PHOTO POSTAL CARD MADE IN CIBIRIA *L. Lodian*

"internationality" amounted to, were diverse exposits of goods stocked by local agents of foreign concerns—as harvesters; gasoline engines; some laundry machinery;; diverse hotel supplies from America; French cognacs; Cuba habanas; Paraquay Kana; Teutonic counterfeits of United States arms, tools, and domestic appliances, and so on.

Photographic materials and supplies were exhibited by local firms who are agents for German, Gallic, British, and some American companies. Much of the so-styled "made in America" stuff, however, is apocrifal; it is known to be spurious, but deliberately marked by the retailers who trade on the good name our wares have acquired, knowing they cannot be by legal process "got at" for the substitution. These so-called "Rochester-made goods," for example, are the notorious cheapened products of diverse cities of Deutschland.



A STAR OF SLAFDOM *L. Lodian*

Natural color photography on water-white mika were in order from Xep Xpiahofcki, of Pomihaefka (Penza ectado), central Russian; also Iolia Kalina, town of Hejin

Sibirian photographers made a fair display—from G. Metenkof, of Ekatepinbypr (trans-Ural) in the west, to G. Podzapof, of Bladibactok, in the far or extreme ast of Sibiria. Ancentef, of Zlatoyct (Ural range), showed quantities of landscapes, railroad vistas, brick construction work; D. B. Cbift, of Kokyi, za-Baikal, portrait specialties; H. C. Pen, of Tomck, surey (izickahie) and topographic and electrical and hoisting machinery negatives on glass (no prints); C. Pen frère (bpat), of the town of Perm, on the Russian versant of the Ural ciera, exposited babies' photographs, in which he is a much-worked specialist.

A. K. Grant (a Russian of Scotch descent), of Xapbih (pronounced Karbin), was to the fore also in child portraiture, and I. O. Groves, a Yankee artist, who has passed the greater part of his life in the land of the Slav, is now living in affluent circumstances in the Town of Omsk; he made a creditable showing in general work. Other photographers, native and foreign, exhibited characteristic specimens of their portraiture. The curious official or police exhibition was sent from Petersburg, being the collection of their Rogues' Gallery, showing the Russian classification and system of the Bertillon Measure-



A SLAF FAMILY *L. Lodian*

ments. Still more interesting was the photograph of the Chief of all the rogues, who is doing time for an over-acute development of the "sense of touch." He had secured an official appointment as "Boss of all the Rogues." This is one of those peculiar phases of Russian official life which is fortunately unknown in the Western Nations.

From the foregoing it can easily be seen that photography was well represented in this Premier International Exhibition in Sibiria, an exhibition of which not a single American Journal so far as is known, has contained a single paragraph, this account in THE PHOTOGRAPHIC TIMES therefore being the only description available for Amercan readers. The exhibition proved an economic loss, notwithstanding the great eclat with which it was opened. The Boss of the Town was there, with his house of "hangers-on," gorgeously uniformed, and with enough medals to start a numismatic collection. Priests emblazoned with gold-embroidered, old woman-like garbs, were there to bless the ceremony of the official opening. All the chanting over, they immediately fell to feeding with a vim which was continued hour after hour, and wound up in a drunken fetish worship. They stick a little Ikon or Idol in their living rooms, and orgie and bout. The Russians here are not Christian, but practise a kind of invoke its aid many times a day; they then go right on swindling and cheating and lying with invigorated zeal. Tolstoi realized this keenly, and it was once said that he was the only honest man in Russia.

PHOTOGRAPHS

BY TRUTHFUL JEEMS.

LARGE and spectacular fires are a blessing in disguise for they give photographers a chance to earn their salt and pepper on the spot.

Photographs are also taken of prize-winning horses, blue-ribbon sheep, Angora cats, and timid dears with hazel eyes and Billy Burke curls.

Photographs are of comparatively recent origin. You will search history in vain to find the spot where it says, "Little Eva rose to her pink toe tips, plucked a Rhode Island greening and handed it to her husband with a haughty switch of her Boston & Maine train, saying at the same time, 'Addie, here's a lemon!'"

Moving pictures likewise date only from the benignant reign of Theodore I. Nero didn't know a thing about them. He had never gone shooting blue-jays and English sparrows in the impenetrable jungles of Africa. He had never planted his right foot menacingly on the neck of a stuffed lion and whirled his Big Stick in front of the camera clicker.

If moving pictures had been the rage in Nero's time we should find in the old files of the Popolo Romano some such item as this:

"His Royal Highness, Nero Nerosissimus, has sold to an enterprising firm with headquarters on the Capitoline Hill the exclusive rights for all moving picture privileges in connection with his violin concert with an accompaniment of several streams of water playing on the flames of ancient Rome."

In the early days souvenir postcards were not called nuisances. They were called daguerreotypes after a fellow by the name of L. J. M. Dagüerre, which in English means ruby, light in the darkroom when you fall.

Most men are shaved when they have their photographs taken. Convicts reverse the process. They are shaved, then mugged.

The souvenir postcard is now shoving the cabinet down stairs, though as yet it hasn't touched the kitchen cabinet. It is to be found in a continuous line stretching across the country from Atlantic City and Niagara, through St. Joe and the Seven Falls, and on to the Grand Canyon and the Cliff House, where it finally runs on to the rocks. Most souvenir photos can be taken while the ordinary woman is skewing her mouth into presentable form.

When you take to the photographer that tiny baby two months old "that looks just like his father,—don't you think so?—and has his hair, all but the yellow mustache," don't forget to take along a couple of ham sandwiches and a jar of olives so as to tempt the child with these rare delicacies. This will also show that you cherish no hard feelings agin the ham simply because it's tough and full of gristle.



Editorial Notes



OUR cover illustration this month is from a snapshot negative made by our talented contributor, Mr. Floyd Vail, who has already furnished us with a number of highly prized prints. The present picture was made in Central Park, and is entitled "Winter Sports."

MR. EUGENE VAIL, who contributed the excellent dog picture entitled "Fifi" (entitled "Max," by error), which illustrated our Editorial Notes last month, has been awarded Honorable Mention in the "Rainy-Day-Scenes" Competition of the *Photo-Era*. His picture entitled "Broad Street, New York," which won him this distinction, is reproduced in the February number of *Photo-Era*. Mr. Vail is a son of Mr. Floyd Vail, our own distinguished contributor.

MR. GEORGE N. COBB, an old time view and commercial photographer of Binghamton, N. Y., who makes a specialty of buildings, furniture, machinery and animals, writes us under date of January 22d, that he has taken our magazine for "over forty years." "I enjoy it every month," he is good enough to say; "enclosed you will find a New York draft for $1.50 to pay for the year 1912." We think Mr. Cobb holds the record for length of subscription to our magazine.

MANY photographers seem to think that there is some special virtue or advantage in percentage solutions, so that at times a formula is published in a very roundabout way. The following formula, which was published a few days ago, is a typical example. First we are told to make three 10 per cent. solutions of salts A, B, and C. We now take two ounces of A, one ounce of B, and one ounce of C, and add six ounces of water to make ten ounces all told. For all such practical purposes we may reckon the ounce (of solids) as 440 grains so that one ounce of ten per cent. contains 44 grains. We thus have 88 grains of A, 44 of B, and 44 of C in 10 ounces of water. This last sentence gives us all we need know, and is in many cases a far more convenient way of giving a formula.

IN reply to a querist who asks, the Rev. F. C. Lambert, "What is the most important chemical substance in photography?" he replies, "It is not easy—if, indeed, it be possible— to reply, because so much depends on what is meant by 'important.' In the matter of foundation-stone laying, probably silver-chloride comes very near the starting-point. The darkening action of light upon this substance appears to have been known in the sixteenth century. About 1730 Schultze mixed chalk and silver nitrate, and observed the darkening effect. Soon after that Hellot observed the darkening by light of paper treated with silver nitrate. Salts of silver form the backbone of Daguerreotype, wet plate and dry plate processes, and of P. O.P., C.C., bromide, and other similar printing papers. So that the 'Luna' metal of the alchemists, *i.e.*, silver, still leads the race. Luna caustic is the old name for silver nitrate."



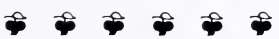
HARVESTING THE CORN

BUT, curious enough, certain salts of chromium—a metal which takes its name from chroma, the Greek word for color, in allusion to the various colors of its compounds—run silver very close in the matter of photographic printing processes. Paper treated with a solution of potassium bichromate is darkened by light. This was known to Mungo Ponton before 1840, who also found that gelatine to which potassium bichromate was added and exposed to light became insoluble in warm water, thus laying the foundation of the carbon, gum bichromate, and host of related "chromatype" processes, including the present-day popular oil-pigment or brush-

collotype. It is interesting to note that potassium bichromate plays an important part in various fabric printing and dyeing processes, and also imparts the beautful color to the ruby—a gem which now can be, synthetically made by fusing together amorphous alumina, barium fluoride, and potassium bichromate, under certain conditions of heat and pressure. The process takes some days, and the resulting rubies are small—yet large enough to be used in the jewelling of watches. Closely related—chemically speaking—to the ruby are the sapphire, emerald, topaz, and spinelle. The so-called ruby-glass of our darkroom lamp has no connection with the real ruby. The ruby color of the glass we use is, for the most part, dependent on the presence of copper, a somewhat different red tint being obtained by incorporating gold; but the copper-glass is the safer of the two for darkroom purposes.



WELL-MEANING friends, quite ignorant of picture-making, at times will insist on dragging us here or there, and then with a wave of the arm present us with a twenty-mile panorama, saying, "I call that a perfect picture." But the picture-maker soon learns that, while there are many things beautiful to look upon, they do not make pictures—not camera pictures, at any rate. Strange as it may sound, yet it is true, that in certain ways it is more difficult to make a picture by photography than by drawing or painting. With the lens it is a case of all or none, take it or leave it, but the man with the pencil or brush can leave out what he likes, taking only that which he wants. And not only that, he can take what he wants and alter it in any way he pleases. The photographer certainly has some control, but he cannot say to his lens, "Leave out that tree in the middle, make the next one taller, and that on the other side shorter."



THE would-be picture-maker who finds his work lagging would be well advised to go out for a day's picture-making now and again without his camera. This is not a cryptic utterance, but merely means that an occasional laying aside of all thoughts on the craft side (*e.g.*, exposure, stops, focusing) will help to clear the mind and eye. At this time of the year an hour or two spent in the streets, country lane, or by the seaboard will afford plenty of examples of the effect of atmosphere (fog, haze, sunshine, and snow reflections), on light and shade, on color, on outline, and on values. It is an excellent exercise to select a simple but interesting subject, examine it carefully for light and shade, recession of planes, values, etc., and then to shut one's eye and in imagination conjure up the normal photographic black and white version. If this teaches us nothing else, it should, at any rate, make us realize that there is nothing in Nature without color.

Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

STRASSER AND THE INVENTION OF "FLINT" GLASS.

A story has been going the rounds of Vienna newspapers regarding the demolition of one of the oldest and most interesting houses in the city. Historically it is noted for having been the workshop of the inventor of a highly refractive glass, called "Strassglass" or "flint" glass.

Locally the structure was known as the "false diamond house" because here in 1760 Joseph Strasser, a goldsmith and imitator of precious stones, had his workshop.

Attention was drawn to his invention under rather amusing circumstances. One evening he attended a ball with his family, and his wife and daughter were adorned with so many imitation jewels, that the suspicions of the police were aroused.

On returning from the ball, Strasser and his family were arrested. Vainly he protested that the ornaments were valcless imitations. The police firmly believed that they were genuine and the result of some burglary.

Emperor Francis I who was a great lover and judge of jewels, heard of the case and had the "jewels" brought before him. The Emperor recognized them as a clever imitation and immediately ordered the release of the prisoners.

This unexpected result moved Strasser to manufacture imitation precious stones and soon the poor artisan became a wealthy man. His invention consisted of a glass containing about 50 per cent. of lead. This glass was highly refractive and when properly cut and polished more closely resembled a diamond in fire and brilliancy than any other substance known at that time, and his work soon became known in Paris and London.

What interests us as photographers is that about the middle of the eighteenth century lead or "flint" glass gained great importance in optics through John Dollond, who made the first achromatic lenses. Dollond (1706-1761) was th eson of a French protestant who fled from Normandie to escape religious persecution. John was a silk weaver by trade, but interested in optics and astronomy.

He studied these and constructed some excellent telescopes. In 1757 he discovered the unequal dispersion of colored light-rays in different glasses and utilized this knowledge, thereby discovering the method of achromatizing lenses. With his son Peter (1730-1820), he founded an optical workshop in London, the chief business of which consisted of making achromatic telescopes. The basic principles involved in these lenses were the same as those used by the French opticians who made the first photographic lenses such as Dagüerre used.

Peter Dollond had heard of Strasser, who meanwhile had moved to Paris, found him and obtained his aid to make lenses of lead glass for achromatic combinations. After Strasser had settled in Paris, he gained a great reputation and amassed a large fortune. Even a street, "Rue de Strass," was named after him.

When the great French revolution occurred, Strasser lost his whole fortune and returned to Vienna, where he soon died.

The word "strass glass" is still used for glass rich in lead and used for imitation jewels.—*Photographische Korrespondenz,* August, '11.



REPAIRING BROKEN GLASS TRAYS.

Glass trays or other glass vessels, especially if they are large, usually represent quite an outlay in money. If there is any

possibility of repairing them when broken it would be quite a saving.

The edges of the broken tray are coated with the following mixture: Best quality of carpenter's glue one part, potassium dichromate 10 per cent. solution, 6 parts, the latter should be warm when added to the glue. After the pieces have been put in place, the whole must be kept together by binding around with strong cords.

The vessel is now placed in strong sunlight for several days. The sunlight renders the glue insoluble so that liquids, excepting glacial acetic acid, may be safely placed in the vessel.—*Die Photographische Industrie,* No. 49, 1911.



UTILIZING SPOILED PLATES.

Negatives which through either wrong exposure or through improper manipulation, have been spoiled, need not be discarded. The plate is placed in, or allowed to remain in the developer until black. It is now placed in a solution consisting of water 100 c.c. (3⅓ ounces), potassium dichromate 1.0 gm. (15 grains), hydrochloric acid 1 c.c. (15 minims). The plate soon becomes white through the formation of silver chloride. We now have the choice of two methods.

If the plate after treating with dichromate is dried without washing and then exposed for 20 to 30 minutes behind a negative of average density, one obtains after developing and fixing, another negative. If on the other hand, the plate is first washed until every trace of the dichromate has been removed and then exposed behind a negative, a positive will result. Ferrous oxalate developer is preferable to those usually employed.—*Apollo,* Vol. 16, No. 351.

PRINTING A BROKEN NEGATIVE.

To print a broken negative whose film is not injured, without the crack showing, is carried out according to "Lux," in the following manner: The negative is first placed film up on a clear sheet of glass the same size as the negative, the two are then bound together with binding strips such as is used for binding lantern slides. The second sheet of glass acts as a support for the broken negative and is to prevent further damage.

The bound plates are now placed in a printing frame and the paper put in contact and the back added in the usual way. A hook or eye is now screwed into one edge of the printing frame. By means of a strong cord, the printing frame is suspended in the printing light by a hook in such a place and position that it can be rotated freely without coming in contact with some obstruction. The frame is rapidly rotated and this is continued until the printing is finished. This method is said to yield the desired result, a print showing no line or mark from the broken edges of the plate. *Kamera Kunst,* Vol. 8, No. 19.

REDUCING OVER INTENSIFIED PLATES.

Negatives which have been intensified with mercuric chloride and turned out too dense, may be reduced by placing them in a one-half to two per cent. sodium thiosulphate solution. The reduction is certain and without danger to the plate and no stains may be feared. Should there be any objection to using the above salt, sodium sulphite solution 1-10 or potassium cyanide solution 1-300 will be found equally good. The density is reduced only to a certain point, then stops. Excessively dense plates may be treated with ammonium persulphate or with sodium thiosulphate and potassium bichromate (or ferricyanide).

—*Apollo,* Vol. 17, No. 391.



Discoveries

[All readers of The Photographic Times are invited to contribute to this Department reports of their discoveries for which we will allow One Year's Subscription, on publication of the contribution.—The Editors.]

MOUNTING PRINTS IN ALBUMS.

The prints to be mounted in albums should be dried flat or dried over a roller, which makes the print lie neat. Strips of dry mounting tissue cut about one-quarter inch wide, make a good mountant for those that prefer tissue. I much rather prefer photographic paste. Paste print on one edge only and mount by passing a warm (not hot), iron over the print. Lay a sheet of plain paper on the print before putting the iron on. This makes a very neat job and no buckling up. Title or other data may be written on the back of the print.

J. J. Harman.

* * *

We know that most solutions used in the darkroom keep much better in full, well-stoppered bottles than when bottles are only half full. The following is a device I have used for some time to keep four or six ounce bottles full when I am using quantities of an ounce therefrom occasionally. Keep a number of marbles—small—handy and as fast as the solution is used replace with marbles. In this way solutions may be protected from oxidation.

S. Webster French.

* * *

A FRICTION MARK PREVENTER.

A few months ago I was printing glossy surface postcards, using the regular "hydrometol" developer, and having no trouble from friction marks, but upon opening a new box of cards the friction marks appeared "good and plenty," I did not want to stop and make up a new batch of developer, so I tried the following plan. I put about a teaspoonful of "Argo Soda" in the developing dish, which contained about eight ounces of developer. Result, *no more friction marks.* If anything, it improved the working of the developer.

A. E. Willcutt.

* * *

TO KEEP DEVELOPER WARM IN COLD WEATHER.

Undoubtedly there are many amateurs who have cold weather troubles and are not so situated as to have a regular dark-room that can be heated. Warming the tray will not last long. I use this method. Warm a heavy piece of iron or if you do not have this lay a brick on the stove until it is thoroughly warmed. Take it in your dark-room and set the tray containing the developer on it and it will keep warm for a long time. In this way you can keep the solution the desired temperature. Use a thermometer and if the solution gets too warm remove from heater and *vice versa.*

J. P. Harman.

* * *

WASHING PLATES.

I have a simple method of washing plates that I consider far better than any print-washer or patented scheme going. Keep a supply of absorbent cotton and use it to swab off the plates between each change of water from one dish to another. After passing through about two changes of clean water let plates soak about ten minutes, then wash again. Wet cotton always before rubbing plates with it, and be sure that no hard substance is in it to scratch. Ten or fifteen minutes of this work will leave the plates cleaner than any scheme of running water or print washers and in one-fourth the time. The same scheme works just as well for prints. Hold prints on a piece of glass for good and quick work.

Burt Stone.

Among the Camera Clubs

[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—THE EDITORS.]

THE MONTREAL AMATEUR ATHLETIC ASSOCIATION CAMERA CLUB.

Holds its Sixth Annual Exhibition of amateur work from April 8th to 13th, inclusive.

The success of last year's exhibition was materially greater than heretofore, by reason of its broader scope, including as it did many European entries, as well as an increased number from United States and Canadian points. Enquiries received lead the committee to believe this coming exhibition will be still more meritorious than the earlier ones.

Entries are invited for the following open classes:

A.—Figure studies, prizes silver and bronze plaques.

B.—Landscapes, prizes silver and bronze plaques.

C.—Waterscapes, prize bronze plaque.

D.—Genre, prize bronze plaque.

In addition, certificates of merit will be awarded at the discretion of the judges.

No entry fee is charged.

Entry forms and any further information will be supplied upon application to the Secretary, P. S. Robinson, 250 Peel street, Montreal, Canada.

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ILLINOIS COLLEGE OF PHOTOGRAPHY, EFFINGHAM, ILL.

Mr. Friend Cochran, of Charleston, W. Va., student of 1907, was elected secretary of the West Virginia Photographers Association at their last convention.

We are pleased to record the marriage of Miss Cyrinthia Jones, student of 1911, to Mr. G. W. Clayton, of Irvington, Ind., last month. We must also include in our marriage column the wedding of Mr. Grover Niemeyer of Chicago, to Miss Grace Potter, of Lexington, Ky. Mr. Niemeyer was formerly secretary at the Colleges.

A new Bogue flaming arc lamp has been added to the printing equipment at Engraving Hall. The new lamp is a great time saver.

Many of the students left for their homes during the Christmas holidays, though quite a number who lived at too great a distance remained in town during the week.

Prof. Killen of the engraving department is building a fine new bungalow on Lawrence avenue, which he expects to occupy in a couple of months.

Moving picture photography will be a featured department of the college the coming year. Up-to-date equipments for film making, printing and projecting will be installed and this important branch will be given a prominent place in the curriculum.

Among the students for February we were pleased to meet Mr. Fred. W. Crone, a brother of Mr. Harry Crone, who was a student of the Bissell College of Photoengraving eight years ago.

Mr. Harry Fox, student of 1901, was married last month to Miss Georgia Countryman, of Canajoharie, N. Y. Also Mr. Victor Gabel, student of 1911, sends us news of his recent marriage.

Prof. Scott is happy over a new electric heater for hypo alum toning, which has just been installed in his department.

We received pleasant visits last month from Miss Tillie B. King, student of 1905; Mr. W. F. Gaus of 1907; and Mr. N. Hausman, of 1910.

Miss Myrno Moss, of Calumet, Mich., has returned to finish her course in photography after a two months absence. Also we were pleased to greet Mr. Walter Dunlap who has been spending the holidays at his home in New Hampshire.

The college camera club have just received the fine collection of pictures of the Photo Era Salon Exhibit, consisting of the prize winners in their various monthly contests—about two hundred prints in all.

Mr. Henry H. Blank and Mr. Fred. C. Miller who have just finished the photographic course, are engaging in home-portrait work in Milwaukee.

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FPROVIDENCE CAMERA CLUB, PROVIDENCE, R. I.

The Providence Camera Club is again preparing a catalogue of its annual exhibition to be held March 25th to April 1st in the club rooms at 55 Eddy street. The catalogue of last year was of such a high order and was so well patronized by advertisers that they feel justified in again urging your support of the coming publication.

The catalogue this year will be fully up to the former high standard and will be an advertising medium of exceptional value because it will be placed in the hands of the real workers along photographic lines. It will be given free to each visitor to the exhibition and the local supply houses will distribute them judiciously among their customers.

* * *

REPORT OF MEETING OF THE EXECUTIVE COMMITTEE OF THE PHOTOGRAPHERS ASSOCIATION OF AMERICA.

At the call of the President, Ben Larrimer, the Board of Officers of the Photographers Association of America met in conference at the Bellevue-Stratford Hotel. There were present:

Ben Larrimer, president, Charles F. Townsend, first vice-president, Will H. Towles, second vice-president; L. A. Dozer, treasurer; Manly Tyree, secretary.

By invitation of the board, there were also present:

E. B. Core, New York City; Clarence M. Hayes, Detroit, Mich.; George W. Harris, Washington, D. C.; and members of the Philadelphia Local Entertainment Committee.

The day was spent in discussion of broad plans for the next convention.

The board went into executive session on the morning of January 18th.

President Larrimer appointed Messrs. Townsend and Towles as auditing committee to pass on the treasurer's and secretary's books. The committee reported that the books and vouchers were in order, and their report was accepted by the board. President Larrimer then appointed the following committees: hotels, Towles; decorations, Tyree; official button, Dozer; association record, Towles; entertainment, executive board; transportation, Townsend; press, Towles, ex-president Harris, Proctor and Holloway; printing and advertising, Larrimer; information, executive board; international exhibit, by unanimous vote of the board, Clarence M. Hayes was selected as special commissioner to collect exhibits from foreign countries; P. A. of A. exhibit, Larrimer and Townsend.

Photographic Reviews

The February number of *Portrait* contains an excellent portrait of C. Bennett Moore, of New Orleans, La., and the usual amount of practical information. We particularly commend the sentiment expressed in the article entitled, "It's Simply Up to You to Reach Out for the Profits in 1912." The following Cyko Catechism contains some excellent advice:

Cyko has latitude.

Give it a chance to assert itself.

Eight seconds are better than four.

Don't over-expose.

Metol is a soft working developer.

Hydrochinon gives brilliancy.

Sulphite is used for a preservative.

Carbonate is used for an accelerator.

Warmth of tone is produced by bromide of potassium.

Don't be afraid to use it.

Over-exposed prints block in the shadows.

Under-exposed prints are cold in tone with chalky highlights.

Use chemicals of Ansco quality.

Don't continue to use old worn-out developer.

Use sufficient developer to cover prints; it's cheaper in the long run.

If you increase metol, increase exposure.

If you increase bromide, expose and develop longer.

Use light enough to see what you are doing.

Test your light for safety, but use lots of it.

Wet emulsion is not as sensitive to light as dry.

Use a fresh acid hypo; it's cheap and means good prints.

Don't fix longer than fifteen minutes.

Stains are caused by exposure to air too long while developing or before fixing.

Use the hypo-alum iodide bath.

A cold bath gives warm sepias.

If too hot the color will be cold.

Iodide counteracts this tendency.

The bath calls for iodide when used hot.

Don't use a temperature higher than 120 degrees F.

Be sure of perfect sulphurization of bath before using.

Bath should be creamy-white.

The silver nitrate in bath prevents attack on silver image.

There is no more silver in an old bath than a fresh one if made correctly.

Compound bath as instructed.

The image of silver sulphide is absolutely permanent.

A mezzo tint may be produced by taking print from bath before chemical change is completed.

The image then contains part silver sulphide and part metallic silver.

To obtain even tones in mezzo tint keep prints in motion.

They are permanent.

To prevent scum sponge off in warm water.

Cold water contracts the gelatine and makes the sediment hard to remove.

Purple spots that will not change are caused by contact with excessive heat in bottom of container, or by air bubbles that allow cooking of emulsion in dry heat without contact with solution.

☆ ☆ ☆

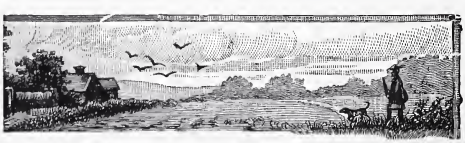
Photography, by E. O. Hoppe, F.R.P.S., C. S. Coombes, B. Sc., F. Low, J. Littlejohns, W. F. Slater, F.R.P.S., E. A. and G. R. Reeve, H. P. Maskell and others, with over 120 illustrations including original photographs by the authors and examples from the work of J. Craig Annan, Will Cadby, Alvin Langdon Coburn, Rev. D. G. Cowan, M.A., J. W. Church, H. S. Cheavin, F.R.P.S., Dr. W. M. Daniels,

Rudolph Dührkoop, Frederick H. Evans, W. H. Rogers, T. M. Weaver, and Miss R. M. Whitlaw.

This is a handsomely illustrated and entirely practical volume of over four hundred pages. The completeness of the book may be seen by the list of subject which are treated:

Chapter I.—Introductory and Historical.
II. The Darkroom.
III. The Camera.
IV, V, VI. The Optics of Photography, By C. S. Coombes, B. Sc.
VII. On Selecting a Lens, by C. S. Coombes, B. Sc.
VIII. Focusing the Image.
IX. The Laws of Pictorial Composition, by J. Littlejohns.
X. Exposure.
XI. Development of the Negative.
XII. Time Development, by W. F. Slater, F.R.P.S.
XIII. The Chemical Theory of Exposure and Development, by Robert E. Pigott.—
XIV. Orthchromatic Photography.
XV. Indoor Photography.
XVI. Portraiture: Materials, by E. O. Hoppe, F.R.P.S.
XVII. Portraiture: Lighting and Posing, by E. O. Hoppe, F.R.P.S.
XVIII. Portraiture: General Remarks, by E. O. Hoppe, F.R.P.S.
XIX. Architectural Photography, by E. A. and G. R. Reeves.
XX. Architectural Interiors, by E. A. & G. R. Reeves.
XXI. Defects in the Negative and their Remedy.
XXII. Gelatine-Chloride Printing-out Paper.
XXIII. Collodion, Albumen, and Other Silver Papers.
XXIV. Platinotype.
XXV. Bromide and Gaslight Papers.
XXVI. The Carbon Process.
XXVII. The Gum-Bichromate Process.
XXVIII. Oil Processes.
XXIX. Miscellaneous Printing Processes.
XXX. Hand Cameras, by Henry P. Marshall.
XXXI. Reflex Cameras, by Henry P. Maskell.
XXXII. Stereography, by F. Low.
XXXIII. Enlarging.
XXXIV. Lantern Slides.
XXXV. Photo-Micrography.
XXXVI. The Pinhole Camera.
XXXVII. The Wet-Plate Process.
XXXVIII. Emulsions for Dry Plates and Films.
XXXIX. Photography in Natural Colors, by F. Low.
XL. Three Color Negatives.
XLI. The Lippmann Process in Practice.
XLII. The Color Salt, by Henry P. Maskell.
XLIII. Animated Photography.
XLIV. Photo-Engraving, Collotype, Etc.
XLV. Retouching.
XLVI. Photography by the X-Rays.
. Appendices.—Chemicals in General Use in Photography.
Miscellaneous Notes and Formulæ.
Tables of Weights and Measures.
Diaphragm Numbers.
Thermometric Table.
Table of Distances for Enlargements.
Table of Comparative Speed Numbers of Plates.
Index.

Two of the illustrations are colored plates. The book is handsomely bound in half red leather. Price, $2.00; will be sent to any address carriage paid, on receipt of price by THE PHOTOGRAPHIC TIMES Publishing Association, 135 West 14th street, New York City, who are the American publishers of this work.



Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

AN INEXPENSIVE ILLUMINATOR.

The Eastman Kodak Co., have placed a practical device on the market for the purpose of further simplifying the method of making bromide enlargements with the Brownie Enlarging Camera.

The Brownie Enlarging Camera Illuminator eliminates daylight as a necessary element for the making of enlargements with this little camera, but we see many other uses for such an illuminator that will appeal to most every amateur who makes his own prints and would like to make an enlargement occasionally from his best negatives.

As the illuminator has been fully described in our advertising pages, we will only say that its construction gives one the benefit of all the reflected light from a 75 candle power Tungsten, which is recommended to be used with it. This volume of light has the least possible obstruction in being diffused, as a flashed opal diffusing screen is used. This is not to be confused with ordinary opal glass. Being flashed only on one sire, the light is reduced no more than with an ordinary ground glass, but as great diffusion is secured as though two or three ground glasses were used.

When the Brownie Enlarging Camera is placed in front of the Illuminator, enlargements may be made on bromide paper in from one to ten minutes and the necessity for using daylight be entirely done away with, but for the amateur who wishes to make enlargements of any size by using his Kodak, the problem of apparatus is solved by this inexpensive device.

It has been difficult for most amateurs to arrange a suitable place to enlarge by daylight and the apparatus for enlarging by artificial light has in most instances been too expensive.

The Brownie Enlarging Camera Illuminator is not only convenient and inexpensive for enlarging, but makes an excellent light for contact printing, and when its orange screen is placed over the white light, it is equally convenient for developing the contact prints or enlargements. The Illuminator sells for $3.00 and may be had from your dealer.

☆ ☆ ☆

SNAPSHOTS AND EDUCATION.

Mr. Elbert Hubbard has written and published a characteristic booklet entitled, "Snapshots and Education." In this "preachment," as he calls it, he strongly urges his reader to "get the camera habit." "All artists now make much use of the camera," he says. "The first requisite in art is to observe. You have to see the separate things, and my advice to the teacher and parent is—allow your children to get the camera habit." Further on in the book he explains what he means by the camera habit, saying that "it endears us to life, prevents nostalgia, preserves sanity, and makes for health, happiness, sound sleep and good digestion." He then goes on to say that "at present nothing will equal in joy-giving qualities, the Ansco cameras which are made by the Ansco Co., Binghamton, New York. This concern has been making cameras for sixty years, and more than ninety per cent. of the cameras in use by professional photographers have been supplied by this company.

"The Ansco enterprise grew out of the Scovill Manufacturing Company, who made metal plates for daguerreotypes, and accidentally, yet quite naturally, the concern drifted into the business of making cameras, whcih gradually took the place of the old-time daguerreotype. Very few people are living now who had their pictures taken in the form of daguerreotypes.

"What the Ansco folks do not know about the business of photography is not worth knowing. The men who manage the concern were born in it, and have grown up in it, and have evolved with the business.

"Amateur photography is practically a new thing. We used to think that only a person of great skill and long experience could take pictures. Now, the principal trade in cameras is with the amateur.

As an education, the camera is taking its place right alongside of books.

"The predecessors of the Ansco Company are the Scovill and Adams Company, and E. and H. T. Anthony and Company. These people issued a big book, advertising a large number of cameras and fixtures which were supposed to be necessary to the taking of photographs. The whole business, now, however, has been very much simplified through the use of the film, which, of course, takes the place of the glass plate.

"All educators, teachers, parents, would do well to send to the Ansco Company, Binghamton, New York, for a catalog showing illustrations and descriptions of Ansco cameras, and the materials that are necessary in developing.

"This catalog is only a small booklet, but it contains about all that the amateur will want to know about the subject.

"The very moderate price at which these splendid cameras are shown is a delight and a surprise to the average individual.

"An Ansco camera properly used will last for years. The parts are very simple and can be easily replaced. Any individual of average intelligence can operate an Ansco, and the use of an Ansco in the family will be a source of enjoyment for every member of the household.

"The habit of preserving the prints in a scrapbook will be found especially pleasing and entertaining, giving history in the form of pictures. More and more, as the years pass, will many of these pictures be of value, but the greatest value of the camera lies in the fact that it teaches the child to observe and puts him on close and intimate terms with God's great out-of-doors, and the world of living, pulsing things."

☆ ☆ ☆

It is a pleasure to me to say a word in favor of the Series Ic, 4.5 Zeiss Tessar. The old story about the soap box and spectacle lens, is probably still alive, but if one is bent on doing pictorial work, as the demand stands to-day, the Series Ic will do more to approach the goal than any lens I know of. In using a 5-inch focus on a 3¼ x 4¼ Graflex it will do wonders if the man behind it can do his part.

R. S. KAUFFMAN.

☆ ☆ ☆

OUR NEW BOOK ON PHOTOGRAPHY.

Of all the text books on photography which I have had the pleasure of reading during the past ten years, I believe *Photography* has more information and knowledge embodied in it than have any other three.

It should be in the hands of every photographer, be he a professional or amateur, and should prove of untold value to anyone who has occasion to use practical information regarding various branches of photography at any time.

Summing the matter up, I might say that it is a dictionary of photography, a text book of photography, and a school of photography, combined in one.

Thank you for the privilege of having been able to add this book to my library of works touching upon photography, and predict that it will have a large sale in this country.

WOLLENSAK OPTICAL CO.
By H. OLIVER BODINE.

The Photographic Times

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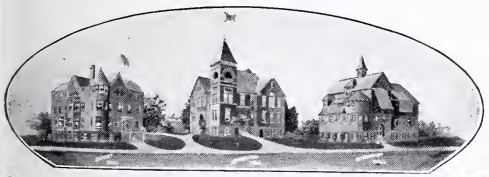
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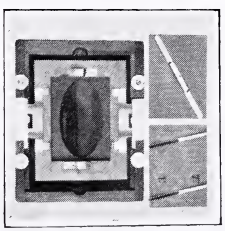
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PHOTOGRAPHIC SUPPLY MAN—Must be thoroughly familiar with the use and sale of photographic merchandise. Practical experience in photo supply business necessary. Work as a professional photographer not sufficient. Applicant must have a good English education and ability to write business letters. Apply in writing, stating age, experience and salary expected. SEARS, ROEBUCK & Co., Chicago, Ill.

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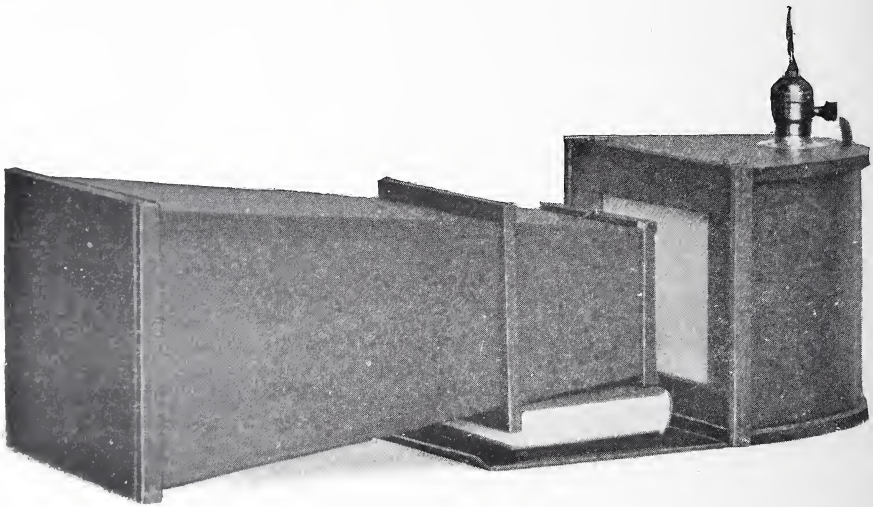
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Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*



Brownie Enlarging Camera in use with Illuminator.

THE BROWNIE ENLARGING CAMERA ILLUMINATOR.

This exceedingly simple and practical device, was made for use with the Brownie Enlarging Camera so that daylight would no longer be necessary but in addition will be found a most practical illuminator for any amateur who wishes to make bromide enlargements with a small camera. The evenings may be devoted to the making and finishing of enlargements, the illuminator not only furnishing the light for enlarging but acting as a dark room light as well. It is also well suited to the making of contact Velox prints.

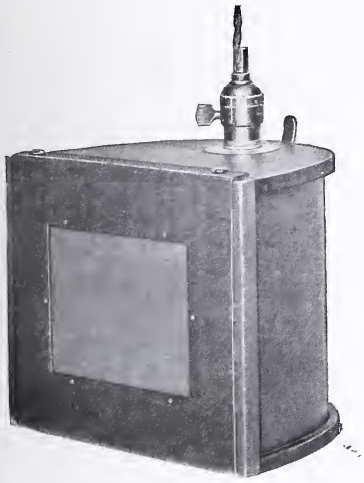
The illuminator consists of a light-tight box, the semi-circular sides of which act as a reflector. The top is provided with an opening for holding a Tungsten electric bulb, the light from which is reflected upon the opal glass screen covering the front. This opal glass screen assures the light being perfectly diffused and evenly illuminating the negative placed before it. A hinged front with an opening covered with orange fabric, covers the opal glass screen, converting it into a dark room light suitable for developing the Bromide enlargements or Velox prints. Figure one shows the orange fabric screen dropped down out of the way and the enlarging camera in position for making the enlargment. With the Tungsten lamp recommended for use with the illuminator, fully timed enlargements may be made in from one to ten minutes, depending on the density of the negative.

Figure two shows the orange screen in its original position, where it is held by two snap buttons, when developing the enlargements.

When writing to advertisers please mention THE PHOTOGRAPHIC TIMES.

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

The illuminator is readily knocked down for packing or storing and as readily set up again for use.



Illuminator with orange light shield in position.

THE PRICE.

Brownie Enlarging Camera Illuminator (without lamp or socket attachment) $3 00

VARIOUS USES FOR DRY MOUNTING TISSUE.

Dry Mounting Tissue has come to be so generally used for the mounting of photographs on thin mounts and album leaves that little need be said of its adaptability for all kinds of photographic mounting. A word however, regarding the many other uses of Kodak Dry Mounting Tissue may not be amiss.

In practically every case where ordinary paste would be used, Dry Mounting Tissue will give better results. Suppose for instance you have some dainty little heads on post cards that you would like to use for place cards, menu cards, score cards or dance programes. Just tack a piece of dry mounting tissue to the back of the card by touching it in one or two places with the point of a hot iron. Now cut out the picture and tissue together and it is ready to mount on any kind of paper or cardboard without danger of buckling the mount out of shape, as is usually the case when paste is used.

Dry Mounting Tissue is excellent for mounting prints on cardboard for passepartouting, for mounting in scrap books, in fact anything that is to be mounted on a thin paper or cardboard support is best mounted with Dry Mounting Tissue.

All that is required is a hot iron. Tack a sheet of tissue to the back of the print to be mounted, by touching it with the point of the iron. Lay the print on the mount or album leaf, cover with a piece of paper and press for a moment with the hot iron.

Your dealer will supply you.

HOME DAYS.

We let go of summer with reluctance thinking we would like to have one continual season of sunshine and flowers, and when winter comes with its outdoor sports as well as those delightful days at home, we are equally loath to see the snow give way to the warm days of spring.

One plans to do so many things during the winter months that the time is all too short but while there is still a bit of winter left, get acquainted with a Portrait Attachment and its many uses.

The Portrait Attachment is a simple and inexpensive little device that you will never be without once you have seen its many advantages. Then winter is such an ideal time for experimenting, and the knowledge gained indoors during winter will be of inestimable

When writing to advertisers please mention THE PHOTOGRAPHIC TIMES.

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

value when the warm days come with an invitation to explore the woods and parks in the quest of the first flowers of spring.

The Portrait Attachment has many uses, other than the making of portraits, which make it indispensable to the owner of a Kodak. To the student of nature the most interesting things are many times the little things that require making a picture at short range. The Portrait Attachment allows one to single out the interesting bit of nature and set the Kodak at as short a distance as three and one-half feet from the object to be photographed. In this way a much larger picture of a small object is secured, the scope of the lens being materially narrowed down.

It is in the home that one really gets the most use of the Portrait Attachment and there is yet time to become proficient in the making of home portraits before the warm days. Then you will find there are many opportunities for making portraits outdoors as well as in the home and with less trouble. The indoor experience is valuable however and should be had.

By home portraits one does not necessarily mean head and shoulder pictures of the grown-ups. Nothing is more interesting than child life and it is in the home that one finds the children at their best. The surroundings are familiar and pictures of the kiddies with their toys and dolls may be made without danger of losing the charm of naturalness. With the Portrait Attachment slipped over the regular lens of the Kodak, a good volume of diffused light and a little strategy, it is only a matter of waiting for the desired expression. The first roll of film will convince you of the wonderful possibilities in child portraiture.

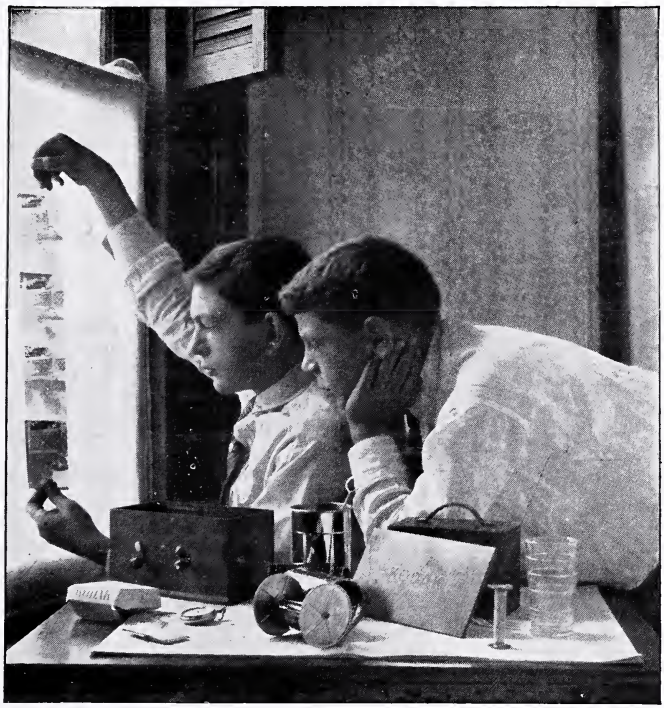
We might also say the picturing of the grown-ups in the home surroundings is equally interesting, for nowhere do we reveal our inner selves with more truth and frankness than in these hours of relaxation. Young and old are affected alike by the home surroundings. A few toys, a plate of fudge, a cup of tea or a pipe of tobacco; each has its potency in starting the gentle flow of companionship that makes the home days ideal Kodak days as well.

The little booklet "At Home With the Kodak," explains in a simple way how to make good pictures at home. The booklet is profuse with illustrations which not only show the work of the Kodak but the methods used in making many of the pictures. "At Home With the Kodak" is yours for the asking.



Illustration from "At Home with the Kodak."

The Kodak Film Tank way is the simplest way—the best way.



Added to the pleasure of doing ones own developing is the satisfaction of doing it better when the Kodak Film Tank is used.

The dark-room with its many causes for faulty manipulation is eliminated. One may develop anywhere with a Kodak Film Tank.

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The certainty of a good negative under the shortest possible exposure is assured with Hammer Plates.

They are the speediest and most reliable plates manufactured.

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TOZOL produces prints of strength and brilliancy with richness and depth of tone.

TOZOL requires only the addition of sodas, bromide and wood alcohol to make a ready-for-use developer.

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What exposure?



Upon the accuracy of your answer to this all-important question depends your very success in photography.

WATKINS' BEE METER

gives you the correct exposure every time—for *any* light—*any* weather—*any* condition.

If your exposure is correct, you can develop your plates or films automatically and be absolutely sure of good negatives. No guessing, no uncertainty.

The price of the Bee Meter is only $1.25—so low that you cannot afford to be without one. It solves the hardest problem in photography quickly and accurately.



No Larger than a Watch

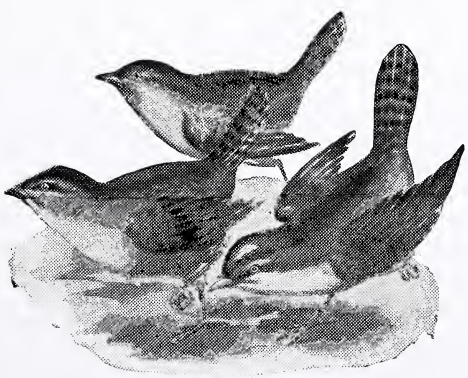
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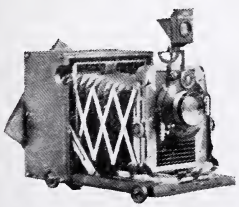
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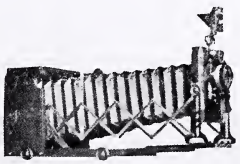
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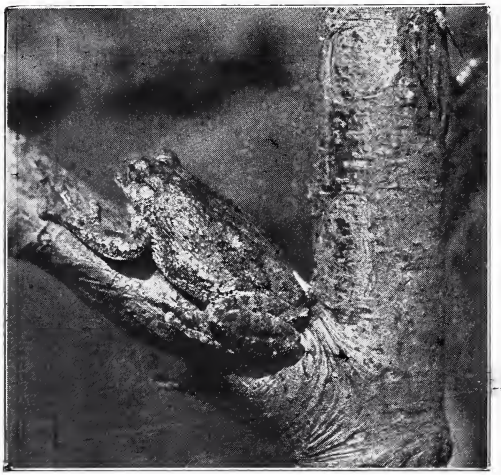
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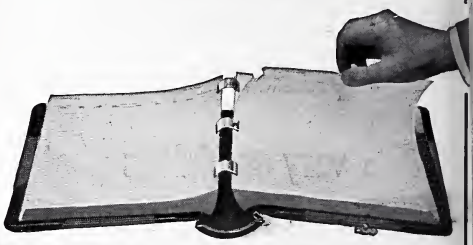
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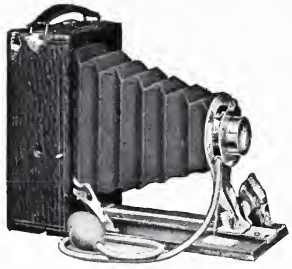
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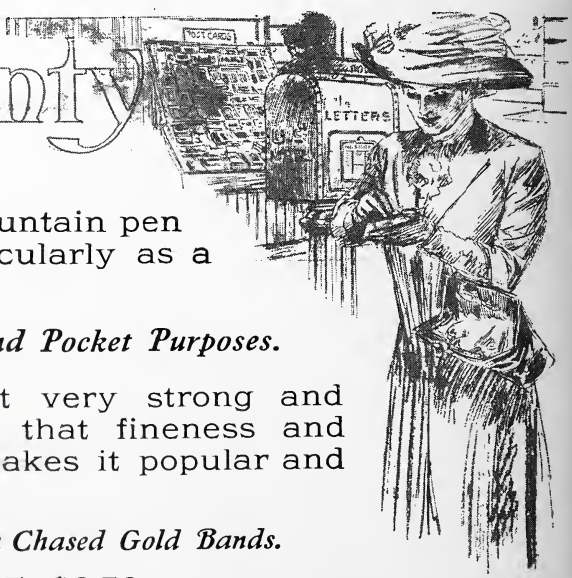
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Volume XLIV APRIL, 1912 No. 4

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The Photographic Times

VOLUME XLIV APRIL, 1912 NUMBER 4

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"Relentless, advancing civilization has crushed all before it; primitive man can but snap and snarl at the giant which has been his destructor. The buffalo are gone, the human brother is but a tottering fragment robbed of his tribal strength, his primitive faith, stripped of his pagan dress, going into the darkness of the unknown future."

We do not need to speak of the photographic value of the Curtis pictures, for the pictures truly speak for themselves, and the artist who made them is entirely successful in his work.

The historical value of the collection has been recognized by the Smithsonian Institution, the United States Government, scientists at Washington, ex-President Roosevelt, J. Pierpont Morgan, as well as ethnologists at home and abroad.

And to the average man and woman, more or less ignorant of Indian life, and tradition, the pictures are fascinating in the extreme. There is more than scientific interest in these pictures at this time. In them may be seen at a glance the incomparable art material with which American painters are favored. There are a few—a very few—artists who discovered the Indian before Mr. Curtis' time, but to the majority they seem to be rather uninteresting savages, whose passing is of no interest. The Curtis photographs demonstrate to the artist what there is that is worth while and distinctive, and if they do not awaken the enthusiasm of painters to-day, they will serve as material and models in the years to come, when the only Indian subject for the artist will be a white man painted in bronze and dressed in buckskin and feathers, borrowed from a museum to which the last trail of the vanishing race will undoubtedly lead.

A museum is a strange dwelling place for human souls and memories. Such a dwelling place of human beings in America, is the home of the Havisupai tribe, livng in Cataract Canon, a branch of the great canon of Colorado.

Standing on the edge of the chasm and looking down on this bewildering gorge, one sees many fanciful forms, fashioned from the world of rock through eons; castles, citadels, pyramids, pinnacles and sphinx-like sculptures, tinted and mysterious with the incomparable atmospheric coloring of the desert, and everywhere wrapped in death-like stillness. As he gazes there is nothing to suggest that three thousand feet below and twenty miles away, at the bottom of this awful gulch, is a garden spot and a village of human beings.

The Curtis studio, at No. 437 Fifth avenue, New York, contains many original features that owe their origin to Mr. Curtis's experience and artistic



THE MEDICINE MAN—SIOUX *E. S. Curtis*

taste alone. On the walls we see prints that have contributed their part in maintaining E. S. Curtis's world-wide fame. There is a dignity about all these pictures that might well be termed the dominant note. Even childhood, when photographed by Mr. Curtis, contains the real Indian characteristics. One cannot imagine him photographing a child, for instance, without retaining the indescribable atmosphere of the prairies or the mountain slope.

"What seems to strike your visitors most," I asked.

"The composite pictures, 'Before the Storm,' 'The Three Chiefs,' and 'The Oath,' seem to please the professional most," was the reply.

Mr. Curtis has been very fortunate in obtaining sittings from interesting people. His portraits are usually made in moderate size, and then sometimes enlarged for exhibition purposes; but his original prints are often much finer in quality than the enlargements which the public sees in the exhibition. Mr. Curtis's collection of pictures, therefore, affords the double interest of being a record of photography of the Indian race, and also of representing a great many tribes of Anglo-Saxon people.

Five years ago it was announced that Mr. J. Pierpont Morgan was financially backing Mr. Curtis in his ethnological and pictorial studies of the Indian Tribes of our great West, and that the result of these studies would be published in pictorial form in twenty magnificent portfolios containing altogether over 2,000 typical Indian pictures. The pictures which Mr. Curtis has actually made of Indian subjects fully justify the conspicuous financial backing which he had, as we are sure our readers believe from the six examples which we are permitted to publish in this number of THE PHOTOGRAPHIC TIMES. Rarely is work of this kind accomplished of so great scientific and historical value, which expresses, at the same time, the temperament of the artist, the poet and the dreamer, Col. Roosevelt says, in his foreword to the "North American Indian," illustrated by Mr. Curtis, that "Mr. Curtis, because of the singular combination of the qualities with which he has been blessed, and because of his extraordinary success in making use of his opportunities, has been able to do what no other man has ever done—what, as far as we know, no other man could do." And, as another aptly said, "Mr. E. S. Curtis has succeeded in catching American Archæology alive!"

SOME LANDSCAPES BY OUR PROOFREADER

BY THE EDITOR.

With Six Illustrations by John Downie.



SEVERAL months ago, we printed, in these pages, some characteristic examples of the work of Mr. John Downie, who has been Chief Proofreader of THE PHOTOGRAPHIC TIMES for many years. The collection of pictures which we reproduced for our readers at that time included some figure subjects as well as landscapes. The present collection of illustrations consists purely of landscapes, and represents Mr. Downie's best work in this branch of pictorial photography. They were shown at a recent exhibition of amateur photographic work in the Y. M. C. A. Building, 215 West Twenty-third Street, New York City, and met with a great deal of very favorable comment in that exhibition.

Mr. Downie is probably at his best in landscape work. He has a distinct feeling for the decorative quality, and his pictures are always composed with



SPRING FOLIAGE *John Downie*



AFTER THE SNOW FLURRY — *John Downie*



A COUNTRY HIGHWAY *John Downie*

great care. Mr. Downie has not changed in his method of work since our previous article about his photographs. He uses an imported view camera, 4 x 5 inches in size, on a tripod, with plates and a rapid rectilinear view lens, and the illustrations herewith shown are from enlargements made on a rough bromide paper.

The illustration, "After the Snow Flurry," is a scene on the highway, near New Windsor, New York, and was a timed exposure. It is particularly decorative in the treatment of the trees on the road side, and we think the contrast of light in the foreground, with the shadow in the middle distance, is very effective.

Another particularly impressive picture is the full page illustration entitled, "Autumn Evening." This picture is really an evening scene, made after the sun had disappeared. It suggests the season of the year and the hour of the day when it was taken by the lack of contrast and the soft, mysterious gloom falling on the scene.

"In Idlewild" is an autumn scene, by time exposure, on the farm near Cornwall, formerly belonging to N. P. Willis, the poet. The charming atmospheric effect was made possible by the rather misty day which Mr. Downie selected for this picture. The foliage is treated with particular skill, being suggested rather than drawn out, and suggesting the effective decorative treatment of the modern French School of Painters.



AUTUMN EVENING *John Downie*

The half page illustrations are good examples of Mr. Downie's landscape work. "Spring Foliage" is soft and spring-like, and the grouping of the cattle in the middle distance emphasizes the pictorial perspective and distance of this picture. "A Country Highway" was selected, near Salisbury Mills, Orange County, N. Y. It is a very pleasant country scene, well selected and well executed.

We selected "A Mountain Breeze" because of the fine cloud effects and the atmosphere which it shows. One can almost feel the cool breeze driving these clouds over the hilltops. This picture represents a short exposure, made near the top of Mt. Beacon, in Dutchess County, New York.



A MOUNTAIN BREEZE *John Downie*

PRINTING PROCESSES, OLD AND NEW

BY MATTHEW WILSON.

PART III.

(5) THE ACTION OF LIGHT UPON THE COMPOUNDS OF MERCURY.



THE behavior of the salts of this metal, when subjected to actinic influence, is in many respects strikingly analogous to that of the silver compounds. Unfortunately, however, the resemblance in question, though a very close one as regards the photographic properties of the salts of the two metals, breaks down at the precise point at which an identity of relationships would be most helpful to the practical photographer. The dissimilarity in point of relative stability, which, in fact, as an examination of those bodies shows, exists between the similarly constituted complex members of this pair of elements, is, indeed, so marked, that for purely technical purposes the compounds of the more volatile metal must be relegated to a comparatively humble and insignificant position as contrasted with that occupied by those of the silver series. Notwithstanding, however, the lack of perfect permanence in the results, which, when mercury is the chosen medium, is likely, sooner or later, to prove detrimental to the appearance of the finished print, the evanescent beauty of the pictures which it has been found possible to produce by the use of certain formulæ of which this metal is an essential component, has operated to preserve the mercurial printing processes from falling into entire disuse.

Moreover, if regarded, on the other hand, from a strictly theoretical standpoint, certain of the photographic reactions of the mercury compounds are of extreme interest, not only on account of their unique physical and chemical character, but also because of the fact that they serve in some measure to help us to realize that the effects due to the impact of light are of a much more complex and diverse nature than is commonly supposed. As an instructive case in point, reference may here be made to the anomalous behavior of black mercurous oxide when exposed to sunshine. The change in chemical constitution which is the outcome of the exposure is not, as we might, from our experience of the alteration effected by light on other bodies, very readily have supposed, one of deoxidation, inasmuch as one-half of the combined metal actually separates out from the combination, leaving the remainder, converted by the splitting up of the molecule into the red or higher oxide, united to the whole of the original oxygen. Another instance of the same kind, but due to a chemical change of the allotropic type, was recently discovered by the writer when experimenting with mercuric iodide. A description of this reaction will be given in its proper place.



SIGNAL FIRE TO THE MOUNTAIN GOD *E. S. Curtis*

Illustrating "Writing History with the Camera."

The photographic properties of a number of the salts of mercury were carefully investigated by Robert Hunt, who has left us, in his "Researches on Light," an interesting account of his experiments.

Mercurous carbonate, he points out, becomes brown even in the dark, carbon dioxide being liberated. When newly prepared, if exposed to light, the same effect is produced, but much more slowly, the action being due to the blue and violet rays. Hunt availed himself of these facts by sensitising paper with a saturated solution of mercurous nitrate, followed after drying by a moderately strong solution of potassium carbonate. "This preparation," he says, "darkens to a good black in sunshine in a few minutes."

Paper sensitised with a combination of ferric iodide and mercurous nitrate was found by Sir John Herschel to be exceedingly sensitive to light when exposed in a moist condition, a dark brown color being produced in sunshine in the course of a few seconds., A reversal of the reaction was found to ensue when the exposed paper was laid aside in the dark for a few hours, the image being destroyed, and the original yellow color restored.

To Herschel is also due the credit of the invention of the *amphitype* process for the production of negative prints, which was described by him in its perfected form in 1844. The sensitising bath was prepared by mixing equal volumes of 10 per cent. solutions of ammonio-ferric citrate and ammonio-ferric tartrate, and adding thereto one-eighth of their joint volumes of a saturated solution of tartaric acid. To this mixture solutions of mercurous nitrate and plumbic nitrate were then quickly added, with constant stirring, the first mentioned salt in the form of a saturated solution, equal in bulk to rather less than half of that of the iron bath. The resulting white precipitate was applied as soon after mixing as possible by means of a brush. "Paper so prepared and dried," says Herschel, "takes a negative picture in a time varying from half an hour to five or six hours, according to the intensity of the light, and the impression varies from a faint hardly perceptible one to one of the highest conceivable fulness and richness both of line and detail, the color in this case being of a superb velvety brown. This extreme richness of effect is not produced except lead be present."

Some further experiments were made by Herschel with the object of finding a method of fixing these negative prints, but without success, as the appearance of the picture was invariably spoiled in the course of the additional treatment required. It was found, however, that the beautiful but evanescent brown negative image could be converted into a black and tolerably durable positive by treating the prints in a solution of mercuric nitrate, washing them thereafter in hot water, and ironing them when dry with a hot iron.

Recently, the particulars of a mercury printing process, somewhat similar to Herschel's *amphitype* as regards the reagents employed, but differing therefrom in respect of the proportions recommended for use, as well as in certain important details of the manipulations, was published in one of the leading French photographic journals.



CLAM DIGGER *E. S. Curtis*

Illustrating "Writing History with the Camera"

With reference to the working of this process, it may be mentioned that the sensitising operations were performed by floating paper, previously sized with arrowroot, on an aqueous solution of mercurous nitrate containing 46 grains of the salt per fluid ounce. After about three minutes treatment the sheet was removed, dried in darkness as soon as possible, and transferred to a calcium-chloride tube for preservation until required for use. With a negative of average density an exposure of only two or three minutes was found to be sufficient to impress the required latent image. The picture was then developed in a bath of the following composition:

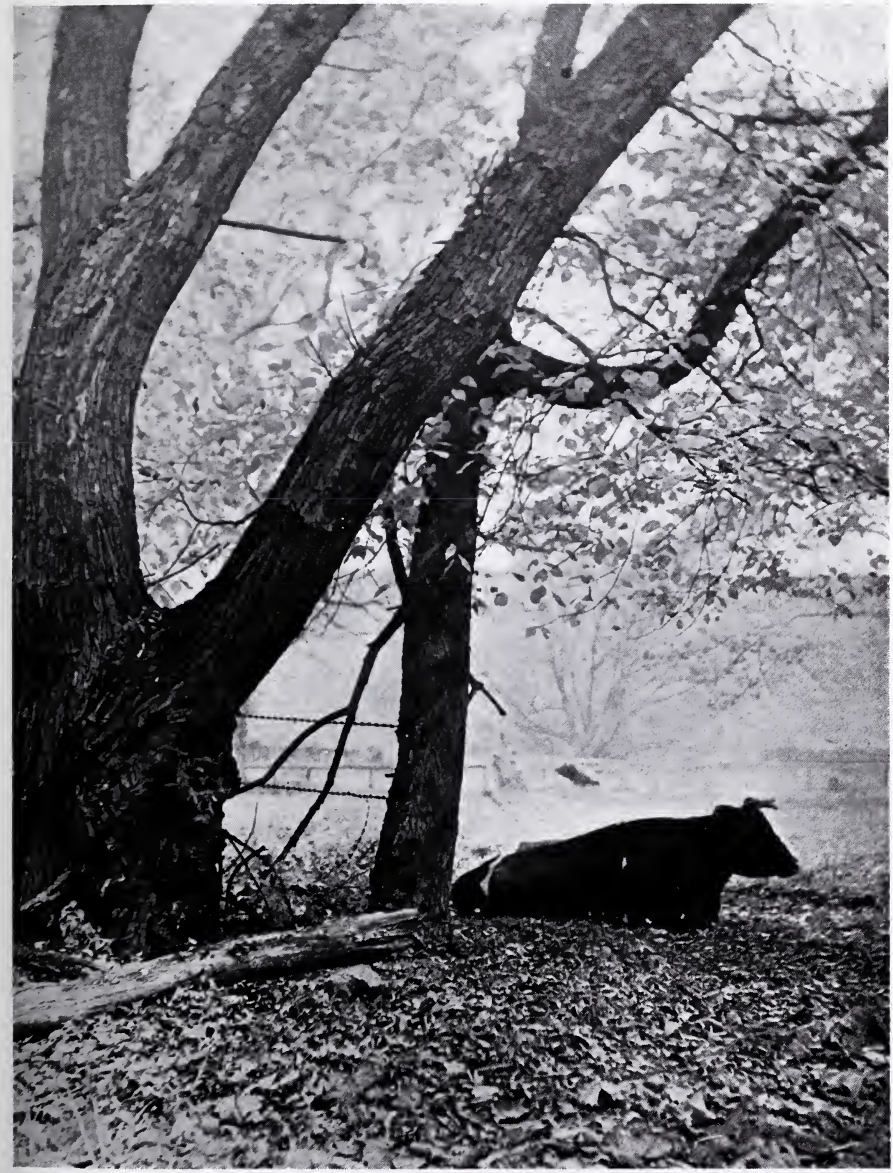
Ferrous sulphate	61 grains
Tartaric acid	61 grains
Water	10 ounces

On the completion of the development, the print was fixed in a 5 per cent. solution of sodium chloride, and thereafter well washed and dried. In conclusion, the further statement was made that the gray color of the image produced by this series of operations could, if so desired, be converted into an ivory black, and at the same time the risks to permanence incurred by the presence of the untoned mercurial deposit partially eliminated by treatment of the prints after fixing in the following toning bath:

Potassium chloroplatinite	2¼ grains
Tartaric acid	46 grains
Water	5 ounces

An allusion has above been made to an experiment of some theoretical interest made by the writer as to the action of light on mercuric iodide. When this salt is dissolved in alcohol, the resulting solution is practically colorless, owing, in all probability, to the formation of an allotropic white iodide of the same percentage composition. In the experiment in question a saturated solution was prepared by boiling an excess of the red compound in methylated spirit, and filtering off the undissolved residue. Paper was then sensitised with the still warm filtrate by coating, and dried in darkness as usual. When about nine hours had elapsed, a sheet of this was exposed under a negative for one hour in the diffused light of a July day. The result was a faint but perfectly outlined scarlet positive image, due to the reconversion of the iodide to its pristine state. A farther exposure of seven or eight hours' duration rendered the image tolerably distinct. After this, however, its outlines became gradually blurred, and finally, after an exposure of twenty or thirty hours in all, were quite destroyed, owing to the progress of an independent action in the unexposed portions of the print, similar as regards its effects, but not due to actinic agency. A like action, it should be added, manifesting itself in the form of irregular scarlet stains extending over the greater part of the sensitised surface, was found to be produced even in perfect darkness after the paper had been preserved for three or four days.

When paper sensitised with a solution of mercuric chloride is exposed to actinic light, the salt loses half its chlorine and is reduced to the mercurous condition. Mercurous chloride being, however, an almost colorless com-



IN IDLEWILD *John Downie*

Illustrating "Some Landscapes by Our Proofreader."

pound, the reaction is not available as a basis for a printing-out process. The latent image so impressed may, nevertheless, be developed by suitable treatment, either by means of weak ammonia, or preferably by the employment of a concentrated solution of sodium sulphite. Unfortunately, the reducing action of light on the mercuric compound proceeds, under ordinary circumstances, much too slowly to permit of the printing operations being carried out in an expeditious manner even in bright sunshine. Thinking that this difficulty might, perhaps, be overcome by the use of a mixed sensitiser, the writer lately tried the effect of a bath containing mercuric chloride and sodium nitrate. On experimenting with this combination, the paper so prepared was found to exhibit a marked increase in sensitivity. To such an extent, indeed, was this noticeable, that a faint brown outline, representing the clear glass border of the negative, was actually visible when the paper was removed from the frame on the expiry of the printing operations. The print was subsequently developed by means of the sodium sulphite bath, and a much more vigorous image was obtained than that previously produced in the same way on paper which, having received exactly the same exposure, had only been sensitised with the simple chloride solution. The appearance of the print, it should, however, be added, was considerably marred by the occurrence of irregularly shaped brown stains, probably due to a partial premature reduction of the mercuric salt, but the precise cause of which the writer was unsuccessful in ascertaining.

Some additional experiments, which were productive of more satisfactory results than those just described, were made upon paper sensitised with mercurous carbonate. Hunt's method of sensitising, *viz.*, by coating the paper first with mercurous nitrate, and thereafter with potassium carbonate, was duly tried, but proved to be utterly useless, the paper being in every case more or less spoiled by the deposition of brown mercurous oxide during the coating operations, notwithstanding the manipulations were conducted in a non-actinic light. On reversing the order of the operations, *i. e.*, applying in the first place the wash of the carbonate solution, followed by that of the nitrate when the paper had become superficially dry, the tendency to discolorization was greatly diminished, although, even with the exercise of the greatest care, it was found almost impossible to obtain a perfectly uniform and unstained yellow surface.

The paper was then dried in perfect darkness, special care being taken to guard against any premature reduction of the mercurous compound by rise of temperature during the process. The subsequent exposure, which was made under a negative in the usual way, was somewhat prolonged, about sixteen or seventeen hours' printing in diffused light being found necessary to the production of a picture of full density. The image so obtained, which was of a rich brown color, was hardly, if at all, inferior in respect of its range of tone and general sharpness of definition, to a silver print on matt surface paper. In pictorial quality of effect, particularly in the matter of contrast of light and shade, and delicacy of gradation, the print very closely

resembled a copper-plate etching, and was much admired for its artistic as well as its technical merits.

As regards the practicability of fixing the image obtained in this manner, the writer is at present, in the absence of sufficient experimental data, unable to express any definite opinion. It appears, however, somewhat doubtful, judging from the general tendency of mercurial images to undergo decomposition when treated with solvent solutions, whether it would be possible to fix the carbonate prints without injury to the beauty of the image. Further investigation with the object of deciding this point is very desirable, and it is to be trusted that the process, though as yet comparatively little known, will some day receive from practical photographers the attention to which it is justly entitled.

(6) THE ACTION OF LIGHT UPON THE COMPOUNDS OF GOLD.

Sir John Herschel, in the English *Philosophical Transactions* for the year 1840, has given particulars of a very interesting and valuable series of experiments made by him on the photographic properties of the gold compounds. Some further researches in the same direction were soon afterwards made by Hunt, and these, together with certain of the more important of Herschel's experiments, are described in the second edition of "Researches on Light in its Chemical Relations," to which work, and to Sir John's original memoir, readers are referred for fuller information on the subject.



What is perhaps the most striking feature about the reduction products obtained by the agency of light on the auric salts, and one which serves to distinguish them from those of the compounds of most of the other metals, is the tendency which they exhibit to undergo further decomposition in the absence of the agency to which the change is due, once the action has been started by means of the necessary preliminary exposure. Speaking of this peculiarity of the compounds of this metal, Herschel states, "Any of the preparations of gold, having been exposed to the solar influence, go on darkening

spontaneously and very slowly, apparently without limit, so long as the least vestige of unreduced salt of gold remains in the paper." Hunt, also, commenting on the alteration effected by actinic agency on paper sensitised with a solution of auric chloride, makes reference to the persistence of the process of reduction after exposure in the following terms: "I have," he says, "observed that the first action of the light is to whiten paper, which has been rendered a pale yellow by the wash of chloride of gold. If papers are removed from the light when thus bleached, it will be found that a darkening action will gradually come on, and eventually develop the picture impressed on the paper. This process is much quickened by placing the paper in cold water, and, however slight the exposure may have been, the process of darkening continues until all the salt of gold is decomposed." A similar phenomenon was observed by both investigators in the case of paper sensitised with solutions of potassium oxalate and neutral chloride of gold. Speaking of the effect of exposure on this combination, Herschel says, "A stain is produced which, however feeble at first, * * * goes on increasing from day to day and from week to week, when laid by in the dark, and especially in a damp atmosphere, till it acquires almost the blackness of ink." On the other hand, the fact is deserving of notice, that paper prepared by treatment with solutions of ammonium oxalate and auric chloride was found by the same writer to be tolerably sensitive to actinic action, acquiring a deep purple tint in the course of a comparatively short exposure. Hunt, on repeating the experiment, managed, after some difficulty, to secure the same effect, by the use of 6 per cent. solution of ammonium oxalate and a saturated solution of the chloride. He further states that he was successful in fixing the prints produced on this paper, by soaking them in cold water, and thereafter washing them over with a solution of potassium ferrocyanide.

Some of the experiments described by Herschel and Hunt were lately repeated by the writer whilst engaged in independent research work of the same character relative to the properties of the salts of this metal. In order to avoid unnecessary waste of an expensive reagent, a solution of chloride of gold of a strength of only two grains per fluid ounce was used for sensitising throughout the series of operations in question, and notwithstanding its weakness was found to answer the purpose quite satisfactorily.

The result of a preliminary test of the effect produced by light on paper sensitised with potassium oxalate and auric chloride, showed, contrary to expectation, this compound to be considerably more sensitive to actinic influences than had been supposed from the statements made by the elder experimenters. In the preparation of the printing paper, a wash of a 3 per cent. solution of the oxalate was first applied, the gold solution being afterwards brushed over the coated surface when this had become perfectly dry.

With paper so sensitised, and exposure of one hour in diffused daylight of medium quality under a negative was found sufficient to impress a faint positive image. On the expiry of about sixteen hours' exposure the picture was found to have attained its maximum density, and thereafter it remained

practically unaltered in appearance until its removal from the printing frame. The print thus produced, though lacking in vigor, displayed in its contrasting masses of light and shade a degree of softness and delicacy which imparted to the picture a certain charm of effect, and served to counterbalance its shortcomings in other respects. The color of the image was an agreeable but somewhat cold shade of crimson.

In the next experiment of the series, the paper was again treated with a 3 per cent. solution of potassium oxalate, followed, on this occasion, after drying, by a wash of a 10 per cent. solution of plumbic acetate. When again dry, the stock gold solution was applied in the usual way, the paper being then transferred to the drying cupboard, where it was permitted to remain for twelve hours. Upon trial, a sheet from the batch so sensitised was found to be much more sensitive to light than the paper used in the previous experiment, a tolerably strong image being impressed in the course of thirty minutes. A further exposure of some hours greatly enhanced the vigor and distinctness of the picture, the color of which was a deep and beautiful purple. It was subsequently discovered that paper treated as above with a single wash of each of the three sensitisers gave an image of a much richer tone than was produced when only single washes of the gold and oxalate solutions, accompanied by two successive washes of the acetate bath, were given.

The sensitisers selected for the purposes of the next experiment were potassium oxalate, plumbic acetate, sodium nitrate (a per cent. solution), and chloride of gold. On exposing in the way already described the paper sensitized with this combination, it was found that, curiously enough, the action of light instead of being accelerated was markedly retarded by the presence of the nitrate. So pronounced, indeed, was the effect thus produced, that, in order to obtain an image of sufficient density, an exposure of upwards of sixty hours in sunshine was actually required. The color, too, of the finished print was somewhat different from that last described, being a soft purple-grey.



FRESH TRACKS *Bess Israel*

In the next experiment, paper was treated with a preliminary wash of stannic chloride, and dried, after which it was duly sensitized with the usual gold solution. An exposure of one hour's duration in sunshine failed to produce any change of appearance. When, however, six hours had elapsed, blurred and irregular patches of a weak image of a purple hue were distinctly apparent. On prolonging the exposure for a further period of forty-eight hours with the object of increasing the vigor of the picture, the additional density obtained was so slight as to be scarcely noticeable. Altogether, the poor quality and other imperfections of the resulting print were too pronounced to permit of its being classed as other than a failure.

An attempt was then made to test the effect produced on a combination of potassium ferricyanide and auric chloride. For sensitising, a 6% aqueous solution of potassium ferricyanide was employed, its application being followed, after drying, by the customary wash of the chloride. On exposure in the printing frame in bright sunshine, a well-defined blue image, due to the decomposition of the iron salt, was impressed on the paper in the course of fifty minutes. No signs of any reduction of the gold compound could, however, be detected, either then of afterwards, for although the print was exposed to light for a further period of nearly fifty hours, an increase in the intensity of the blue deposit was the only visible change produced.

In the succeeding experiment, another combined sensitiser, the constituents of which were ammonium sulphocyanide and auric chloride, was employed. A saturated solution of the former having been diluted with an equal bulk of water, paper was coated therewith and dried, the gold solution being subsequently applied. On printing from a negative, there resulted, after an exposure in sunshine of from two to three hours' duration, an agreeable though somewhat delicate image of a yellowish pink hue. The vigor of the print was considerably increased by further exposure to light, although, owing to the extreme slowness of the action, nearly a week was required to complete the operations.

In the last experiment of the series, paper was sensitised with a wash of a 30 per cent. solution of ferric chloride, followed after drying in darkness, by two washes of the stock gold solution. It was naturally anticipated that on the reduction of the ferric salt to ferrous chloride consequent on the exposure of the paper to light, the chloride of gold would be reduced to the metallic state in accordance with the equation here given, which represents the change produced on mixing solutions of the two salts:

The result of the printing operations was, however, rather disappointing, for although the change which ensued appeared to take place in accordance with chemical theory, yet only a very small part of the gold salt, judging from the feeble character of the print produced, seemed to have been liberated from combination to form the image. It may also be mentioned that an exposure of over a week was required to obtain a print of sufficient density. When printing, the fact was noticed that a negative image, due to the bleaching of the ferric salt, was at first impressed, which, by the continued action of sunlight, was slowly converted into a weak steel-grey positive.

It was found that immersion in hot water after printing had a considerable intensifying effect on the picture, the grey color of which was exchanged during the operations for a ferruginous red. With the object of dissolving out of the iron salts, the print was subsequently transferred to a bath containing a weak solution of hydrochloric acid. This treatment, however, failed to effect the removal of these compounds, the solvent action of the bath somewhat singularly confining its attentions to the image itself, which was speedily attacked by the acid, and in the course of a few minutes almost obliterated.

FURTHER NOTES ON BROMIDE

BY HARRY A. BRODINE.



SINCE my article on Bromide and Platinum Toning appeared in the April, 1911, issue of the TIMES, I have been doing a little more experimenting in connection with the toning of platinum prints. At that time I had succeeded in toning sepia platinum and bromide prints, both black and sepia, to a green or blue, using the same toning bath.

Some time ago I tried a few black prints on American Platinum in the same solution as given in the article mentioned, and obtained very satisfactory results, green or blue tones being obtained at will

I would advise the use of the citrate of iron and ammonia in the green crystals instead of the brown as they are not nearly so likely to discolor the highlights. As this bath intensifies it is apparent that the longer a print is left in the bath the darker it will be when taken out.

If the platinum print is left in the solution a long time a dark blue color will be obtained, while if left in but a short time a green tone will result. One may by shorter or longer toning produce a shade to please his or her individual fancy. As the process of toning is at all times visible there is no guess work as to when the print should be removed from the solution. Prints dry the same color as when taken from the toning bath.

In the case of bromides good results are obtained on the P. M. C. paper. I have tried other papers, but the results are not satisfactory.

When toning bromide or gaslight papers with this bath it is best that they be immersed in a 10 per cent. solution of oxalate of potash for five minutes before toning. By doing this they will tone as usual. If this is not done there is a possibility of some brands of paper bleaching in the bath instead of toning.

Whether platinum or bromide prints are toned they should be fixed in a dilute solutioin of hydrochloric acid.

ART OF THE INSANE



THE peculiar illustration of Pablo Picasso which appeared in the October number of *Camera Work* is a characteristic example of the crazy product of the so-called "cubists," or "Borderland" painters, as Dr. Theodore B. Hyslop calls them in his article on "Post-Illusionism" in *The Nineteenth Century and After.*

Mr. Colin Campbell Cooper, himself a well known American painter, writes to the *New York Sun* to apply to post-impressionism some of the principles enunciated by Dr. Hyslop. Mr. Cooper's own professional standing adds weight to the opinion of this noted student of psychopathy when he says:

"Dr. Hyslop makes a direct charge of insanity and degeneracy against these so-called artists by comparing their pictures with the pictures painted by insane persons in asylums.

"He says, speaking of the work of the insane:

" 'It is by reason of their disease they ignore all contemporary ideals as to what is beautiful, significant, and worthy to be portrayed; and it is thus that free play is given to the workings of their defective minds and whereby they evolve crudities, stupid distortions of natural objects, and obscure nebulous productions which, being merely reflections of their own diseased brains, bear no resemblance to anything known to the normal sense or intellect.'

"This seems to fit so admirably to the work of this alleged 'new school' that it might be a description of many, indeed of most, of its products. He says also:

" 'The artistic efforts of the insane almost invariably betray some trace of beauty, and where this is not evident it indicates that the cerebral and mental devolution of the artist is complete.'

"It would seem, therefore, that the cubists were well in the last stages.

"Dr. Hyslop speaks of what he calls the 'Borderland Critics,' those who praise these ridiculous works which he calls 'things seen as through a mist and without recognizable form; and both the insane artist and his degenerate critic forge chaotic and meaningless jargon to express what is seen or felt' :

" 'The indifferently interpreted, blurred, and nebulous sensory impressions of early paralysis are sometimes suggestive not of a renaissance of medieval feeling or of post-impressionism, but of a return to primitive barbarism. Inside asylums such a renaissance deludes neither the patients nor their attendants, nor does it provide an excuse for esthetic snobs to found a fashion meriting little else than laughter, wrath, or contempt.'

"The insane art critic, he says, is to be pitied, but should be treated as an honest imbecile; but the 'borderland critic' must run the risk of being classed with rogues and degenerates. To overturn all the centuries of en-

lightenment on the subject of art; to discard all the products of hundreds of years, wave it all aside and proclaim anarchy, seems to be the principle of this 'new school.' It is not logical in any sense, since we are so distinctly ourselves the product of those centuries; and if art is a personal presentation it must hinge on our preconceptions.

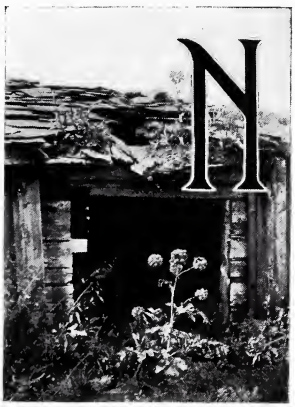
"I can not see why if we deny this we should not logically deny also every established fact of science and revert to the condition of the primitive cave-man. Doubtless the members of these cults would retort that this is just what we should do, but the art of the cave-man is chiefly interesting as a reflection of his conditions and opportunities, just as ours should reflect present conditions and opportunities.

"It is a strange condition of mind arising, perhaps, through that peculiar faculty every one has of shifting a thought or perception from one view of a thing to the direct opposite at will."



IN SPRING PASTURES *H. A. Brodine*

Editorial Notes



NEVER turn your back to your enemy, or anything you have reason to suspect," is certainly not good advice for dark-room guidance. A very large majority of dark-room lamps are richly deserving of being treated with continual suspicion. Therefore, it is a good plan to turn one's back to the lamp when transferring the plate from the holder to the dish, and pouring on the developer, also covering the dish with a piece of card or backing-board can do no harm, and may save a plate from fog. But the protection of the plate, by employing the shadow of the body as a precaution, is not the end of the story. Another quite good reason for turning one's back to the light is that it rests the eyes from the lamp-light to a very great extent, so that when we do turn around towards the lamp again, we find we can easily see slight differences of light and shade that would be discerned with difficulty, if at all, had the eyes not been thus rested.

WITH regard to glass stoppers it should be noted that in the case of volatile liquids like ether, alcohol, and chloroform, a slightly faultily fitting stopper is not nearly so efficacious as a good sound cork, and especially when the cork has been properly waxed. On the other hand, there are certain liquids, corosive and otherwise, with which one cannot use a cork. Again, with certain deliquescent or moisture attracting solids a good fit, be it cork or stopper, is essential. One such substance of special interest to photographers is caustic soda (sodium hydrate), usually sold in the form of white sticks. Not only does this greedily take up moisture from the air and become a pasty useless mass, but, moreover, it has a nasty trick of fixing the stopper in the bottle. I have from trial and experience found out that this trouble can be prevented in quite a simple manner. The stopper of my wide mouth store bottle is laid on a sheet of paraffin paper—the translucent kind so often employed as a wrapping in boxes of dry plates and bromide papers—the edges are gathered up round the stopper, and the stopper gently inserted into the bottle neck with a rotating motion. Then the inside of the neck is smeared with a touch of vaseline, and the paper-covered stopper again rotated. By this simple expedient I have kept the sticks in dry and perfect order for considerably over six months, during which time the bottle has been frequently opened in a rather damp work-room.

THEN with regard to corks, how few people realize that an attempt to take out a cork by "waggling" it about from side to side is quite the best and surest way of breaking the cork and leaving half of it stuck in the bottle neck? Whereas, if the cork be twisted round and round in the same direction, it will usually come out without the slightest difficulty. When the cork is to be replaced in the bottle it should be inserted with a twisting motion and pressure. One might suppose that if we twist the cork round one way to get it out one ought to twist it round in the opposite way to get it in; but this is not the case at all. When removing or inserting the cork one should twist it round always in the same direction, viz., the way the hands of the clock go round.



THE most frequently mentioned objection against "good old pyro," as it is still called, is its tendency to give an undesirable amount of yellow-brown stain. A slight pyro stain in the case of daylight printing does not much matter so far as time of printing is concerned; and, indeed, many old workers still protest that the best printing negative is one with just enough stain to give the negative a warm black tinge. But just now, when we are hearing a good deal about tank development with pyro, we are also having many queries as to how the pyro stain can be avoided, because even a quite slight stain is undesirable when enlarging on to bromide paper with gas or oil light. In this connection three small matters require close attention. First, the water used for the developer should be briskly boiled for a few minutes, and then allowed to stand until it is cool—say, 70 degrees Fahr.; next, the soda sulphite should be of good quality and as free from sulphate as possible; thirdly, it will not do to make up a normal pyro soda developer and then merely add more water. On the contrary, when we add more water we must add more sulphite as well. In other words, the proportion of sulphite should largely depend on the quantity of water rather than the quantity of pyro.



THE recent rapid on-coming of the airman clearly indicates the development of a very little-known branch of camera-work, namely, the bird's-eye view of terrestrial scenery from a considerable elevation. The late Mr. Bacon and others have shown us what can be done from a balloon at various altitudes, but in general the leisurely, drifting balloon is "quite other" when compared with the mile-a-minute flying machine. The worker on terra-firma, when dealing with motion, is mainly concerned with the movement of the objects photographed, but the aeronaut for the most part deals with stationary objects, while he and his camera are in motion. Thus the conditions and difficulties of the two cases are quite different. But happily for the airman, he has to deal with distant objects, which are practically all at the same distance, so that a high-lens aperture is permissible with a correspondingly rapid exposure.

CONSIDER the light and shade of an average sky and cloud effect. We talk of "black clouds," but the darkest cloud is never anywhere near black. Normally, the difference between the lightest and darkest part of the sky is very slight. This slight difference according to what has just been said, would be still less in our compromise print. But what do we generally find in photographs with clouded sky? Nearly always the sky and cloud contrasts are conspicuously exaggerated, and also very frequently overdarkly printed. Now, if there is one thing above others which normally characteristises the sky—at any rate, in fine and bright weather—it is the suggestion of light or lightness. But who is bold enough to say that the skies of the photographer as we see them on the exhibition wall suggest lightness or light? On the contrary, it would be nearer the truth to say that they usually suggest the smoke of the factory chimney with the granularity of sandpaper.

IN the "good old collodion days" (happily all but gone beyond recall) the rule was "expose for the shadows and let the highlights take care of themselves." This was the period of blank paper skies and strong sparkling contrasts of light and shade. But spotless paper skies, snow, or water in time failed to satisfy even the pure technician, and the advent of the ordinary, and then the color sensitive dry-plate considerably changed the outlook of the observant worker. Consequently the old rule of "expose for the shadows" must be now accompanied by the equally important "and develop for the highlights." The notion that prolonged development will force out shadow detail perhaps accounts for more wasted plates than any other single mistake. The very problematical gain of shadow detail is far ouweighed by the practically always certain sacrifice of gradation in the highlights. This note of warning applies with especial force to those pictures which include a good deal of snow, but applies with equal force, *mutatis mutandis,* to flower photography generally, white or very light draperies, and, in fact, to any subject wherein gradation among the lighter tones is of any importance.

ALTHOUGH it is true that there is no recipe, occult or open, whereby pictures or any other works of art may be made, yet it is equally true that there are a few fundamental and far-reaching general principles shared by all the arts which one must never forget. One of these is conveniently named concentration, but sometimes described as simplification or subordination. In other words, the artist is thus led to concentrate the attention or interest of the spectator on some one feature or phase of the work by omitting, or subduing, or subordinating all the other items in the work. A moment's thought will show us that, if our attention be cut up by and scattered among half-a-dozen more or less conflicting or competing objects, no one of them can possibly thus have the mental attention that it might have were its competitor removed or put in the background.

Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

COPYING OIL PAINTINGS.

In copying old and soiled oil paintings, it is of advantage to cover the painting with whipped egg albumen which has been allowed to stand for some time, using only the clear portion.

The surface left after drying is much better for photographing on account of a more even lighting.

The albumen may be removed with a wet sponge.—*Photographische Chronik,* No. 7, 1912.

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SALVE FOR DEVELOPER ERUPTIONS.

Many persons are deterred from developing their exposures on account of the unpleasant after effects from the developing agent. Sometimes only one certain developer has this action; then again all may cause trouble, producing great tenderness or even eruptions where the solution comes in contact with the skin. We know of one case where a professional photographer used "pyro" for many years; one day he noticed an intense itching of the back of the hands, followed by a swelling. The trouble got so bad that all developing had to be done by an assistant and now the developing of even one plate will cause a considerable swelling in half an hour. To those who are so unfortunate as to have this trouble the following salve is said to give relief and cause a healing:

Ichthyol	5	Parts
Lanoline	10	"
White vaseline	15	"
Boric acid	20	"

Developing solutions must be avoided during the treatment, otherwise the time of healing will be prolonged.—*Kamera-Kunst,* Vol. 8, No. 15.

DURABLE BOTTLE LABELS.

An original suggestion, according to the *Rundschau,* is that to use the refuse from printing out paper (gelatine probably) for labels. A certain amount of the paper or print is trimmed away and the author proposes to use these cuttings as labels on bottles.

All that is necessary is to soak the paper in water and then apply the label.

After drying, the paper adheres very well. Of course, cuttings treated with any hardening preparation like alum or formaldehyde must not be used.

It has never happened to the author that labels of this kind came off.—Augustin, *Die Photographische Industrie,* No. 49, 1911.

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Deutscher Photographen Kalender. 1912. 31st year. 1 map and two art supplements. Published by Karl Schwier, Deutschen Photographen Zeitung, Weimar, Germany. Price bound in linen, Mk., 2.0

This popular little volume comes to us once again. As usual, it is replete with almost endless information. Among the useful things are a two page map of Germany, in colors, a daily calendar, metric and other weights and measures; also postal information, various statistics, especially appertaining to Germany, such as the number and kind of inhabitants and their development and land area; the commerce and industry and number of inhabitants of 100 German cities and similar information of the principal cities of the world; German copyright law; thermometer scales and their conversion; photographic chemistry and optics; rules for photographing moving objects; speed of various shutters. Besides there are 680 photographic formulas and recipes.

SEPIA BROMIDE PRINTS.

The various methods heretofore suggested for sepia toning were tested by the author and found unsatisfactory. He thereupon devised the following method, which is equally applicable to toning slides The well washed prints are bleached in:

English		Metric
8 ounces	Water	250 c. c.
1 dram	Mercuric chloride	4.0 gms.
30 grains	Cupric chloride	2.0 gms.
37 grains	Ammonium chloride	2.50 gms.

The print which almost disappears in the above solution, is then transferred to the next bath consisting of:

English		Metric
20 ounces	Water	600 c. c.
1 ounce	Sodium chloride	30.0 gms.
1 dram	Hydrochloric acid	4 c. c.

The tray is rocked for a few moments and then allowed to rest for five minutes. The print should then be well washed and placed in:

English		Metric
5½ ounces	Water	160 c. c.
2½ drams	Sodium sulphite	10.0 gms.
1 oz. 2½ drs.	Sodium thiosulphate	40.0 gms.

To the latter bath is added a hot solution of chrome alum. The image gradually appears and soon attains the proper strength. Finally the print is well washed to remove every trace of the fixing soda.

According to J. Gaedicke, the toning is produced by the acid of the chrome alum causing a separation of sulphur, which at that moment combines with the metalic bases of the chlorides, forming sulphides. —*Photographisches Wochenblatt,* No. 2, 1912; *Photo-Revue,* Nov., 1911.

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ONE SOLUTION INTENSIFIER.

Several one solution intensifier formulas have been published. Here is a new one which is odd, since it contains platinum. The following solution is suggested in the *"Photo-Revue":*

English		Metric
20 ounces	Distilled water	600 c. c.
8 grains	Mercuric chloride	0.50 gm.
15 grains	Sodium chloride	1.0 gm.
23 grains	Platinic chloride	1.50 gm.

The plate to be intensified must be well washed to remove the fixing soda. If the plate is dry it should be soaked in water. The plate is allowed to remain in the solution until the required density has been attained, which may take from five to fifteen minutes. After intensifying a short washing finishes the operation.

The same solution may be used repeatedly. The above quantity is sufficient for about ten 5 x 7 plates.—F. Gouillon, *Photographische Chronik,* No. 73, 1911.

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DEVELOPING AND FIXING IN ONE SOLUTION.

The best reducing agent for this simplified method is diamidophenol, because, according to *Photo-Gazette,* it possesses the property of bringing out the finest details without causing too much density, even with long development. The plate may be left in the solution until fully fixed.

While developing and fixing the plate need not be watched; the action of the solution is quite automatic.

English		Metric
9 ounces	Water	270 c. c.
½ ounce	Sodium sulphite	15.0 gms.
45 grains	Diamidophenol	3.0 gms.
1 ounce	Sodium thiosulphate 20% sol.	30 c. c.

If the plate after fixing is covered with a white deposit (and this may happen if the tray was not rocked during development) this deposit may be easily removed by means of a tuft of wet cotton.—M. V. Cremier, *Apollo,* Vol. 18, No. 397.

Discoveries

[All readers of The Photographic Times are invited to contribute to this Department reports of their Discoveries for which we will allow One Year's Subscription, on publication of the contribution.—The Editors.]

Photographic Times,

Dear Sirs: I have noticed your page on "Discoveries," in your magazine, and am sending you one of my greatest helps. Those who use factorial development will find it will save time and bother if a table is made, which shows at once the time of development. Use a blank card, about 3½ x 5, or a postal card, and near the edge write the seconds, 15, 18, 20, 23, 25, etc. Multiply by the factor and this gives you the complete table, which shows at a glance the time for development. I can truthfully say that your magazine is the best one I have yet read.

Respectfully yours,

Jas. McNett.

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As an illustration of little things that count, I might refer to "tear-drop markings" on negatives, the result of drops of water on the film side which do not dry until after the adjacent parts of the negative are dry. The only available and likely suggestion by way of remedy is to soak the negative for some hours in water and re-dry. Occasionally this will improve matters, but more often than not the case is beyond cure in our present state of knowledge. Fortunately, however, the markings are easily prevented by abolishing the presence of such water drops *ab initio*. The following procedure may be commended: On removal of the negative from the washing water first wipe the film side with a tuft of cotton-wool, so as to remove the usual collection of particles of dirt of all kinds. The dirtiness of the cotton-wool will show us that this is a desirable thing to do. As the water is not unlikely to contain particles of sand, this "swabbing" with the cotton-wool should be done with a discriminative delicacy or a scratched film may result. Next wipe the glass side of the plate as dry as possible. For this purpose I find the best thing is a piece of the thinnest and cheapest soft Turkish towel-ing (about 3d per yard, for roller towels), as this seems to absorb water better than linen rag. Now lay the negative down on any flat surface, film side up, of course. Take a clean handkerchief or handful of fine, soft rag, as fluffless as possible. Roll it up into a ball, and quickly, yet lightly, "dab" it over the film. As an alternative one may lay the negative between sheets of fluffless blotting-paper and rub it lightly. Or yet again one may spread a couple of thicknesses of flannellette over a flat, thin piece of wood, and with this gently stroke the film from side to side after the manner of using a squeegee. Or yet once again one may use a whirler. It will be found that a negative with its glass side quite dry, and film "surface dry" will be thoroughly "bone" dry, as we say, in less than half the time taken when the dripping negative straight from the water is set up in the rack without more than the usual shaking.

Rev. F. C. Lambert.

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With interest I read the article about printing box in August number of your magazine, for I am using a similar box for nearly two years and I think my box is much easier to make and cheaper, still have many advantages.

My box has yellow glass bottom and plain glass top and between light and top glass I have red glass slide, this slide you pull out to give exposure. Now hang this box on wall you can use bottom light for developing.

H. Fukasawa.

Among the Camera Clubs

[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—The Editors.]

NOTES FROM THE ILLINOIS COLLEGE OF PHOTOGRAPHY AND THE BISSELL COLLEGE OF PHOTO-ENGRAVING, EFFINGHAM, ILL.

The enrollments for last month represent students from many different parts of the country, as follows: Mr. Kojichi Otsuka, Japan; Raymond Fonderhide, Ohio; J. T. Nixon, Illinois; Harold E. Morton, Kansas; Richard A. Halling, Nebraska; Lionel L. Merrill, Canada; Conrad F. Torgerson, Minnesota; E. Meives, Wisconsin; Ora Stover, Ohio; Richard J. Ribbe, Wisconsin; Alice E. Miller, Indiana; F. W. Catencamp, Wisconsin.

We received visits last month from former students, M. G. Rutledge of 1910, and Wm. B. Souers of 1908. While here Mr. Souers engaged Mr. K. H. Sturtz to assist him in his studio at Bridgeport, Ill.

Two of our popular students, Mr. J. R. Latshaw of Wisconsin, and Mrs. Ada Dunham Macfie, the charming "college widow," gave their many friends here a surprise by getting married last month at Lincoln, Ill., where Mr. Latshaw has been located for the past few weeks. Mrs. Latshaw has returned to finish her course at the college, and expects to assist her husband in the work.

The photography boys' bowling team has secured a decided lead over the engravers during the past month and are beginning to insinuate that the game is too deep for them, but the engravers merely comment that people who do nothing but sit around all day in a studio and talk to pretty girl subjects ought to be able to clean up on a bunch that have worked themselves down and out every day before the game.

Mr. Masataro Ito writes us from Oswego, N. Y., that he is having excellent success with home portraiture in that city and is creating quite a reputation for his work.

Mr. and Mrs. Bissell have just received word from San Francisco that they are the grand-parents of a fine baby boy at the home of their daughter, Mrs. Ruby Magee.

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Various suggestions and matters pertaining to the conducting of the 1912 National Convention were formally discussed and the following resolutions were adopted unanimously.

1st. After careful consideration of various location offered by the City of Philadelphia, the board selected Horticultural Hall.

2nd. That the week of July 22d be the date of the National Convention of the P. A. of A., for 1912.

3rd. That the 1912 convention shall open officially on Monday, July 24th, and shall be held from Monday to Saturday inclusive.

4th. The board decided to publish *The Association Record* which shall contain the complete proceedings of the 1912 P. A. of A. Convention and Congress with the revised constitution and complete list of membership. This record shall be illustrated by pictures, to be selected by a jury appointed by the board from the 1912 exhibit and be mailed to every member within thirty days from the close of the convention.

Fifth. That every professional photographer in America is invited to send an exhibit of one or two pictures.

6th. All exhibits to be delivered prepaid in Philadelphia on or before the morning of July 15th, in order to receive consideration.

In order to make this exhibit an educational feature, a jury will be appointed by the board with power to reject pictures of insufficient merit. All pictures shall be catalogued and hung prior to the opening

of the convention and catalogues furnished free to all members through the office of the treasurer.

7th. Practical demonstrations of modern methods shall be given during the convention on plans hereafter to be made public.

8th. That the Fourth Annual Meeting of the Congress of Photographers shall hold sessions during the convention and that the chairman shall be authorized to issue call for same.

Many subjects of vital importance in broadening the influence of the congress were referred to the board by that body for their careful consideration.

9th. On petition presented by the president and secretary of the Women's Federation, who were present, the board allotted the sum of five hundred dollars ($500) to be used in defraying expenses incurred in collecting and preparing their exhibit, increasing their membership and influence.

10th. Features for the instruction and entertainment of the members of the P. A. of A. be duly provided for according to the plans laid down at this meeting.

11th. That the Hotel Walton be made the official headquarters of the association during the period of the convention.

12th. That an official button, denoting the grade of membership in the association be issued in the usual course.

13th. That spaces sold to the manufacturers and dealers in the convention hall be provided with booths and decorations, following a uniform plan, at the expense of the association.

14th. That Wednesday, July 24th, be "Atlantic City Day." That complimentary tickets will be furnished all members of the association through the treasurer's office. These tickets will include transportation and return, luncheon, bathing, admission to pier and other entertainments.

15th. A hearty vote of thanks was tendered by the board to the Philadelphia entertainment committee, through their chairman, William H. Rau, for their cordial welcome, co-operation and assistance to the Board in completing their work.

RULING OF THE BOARD.

Whereas, The amendment to the constitution relating to the active membership of others than studio owners was referred by congress to the board for interpretation. The board ruled as follows:

That no member in good standing shall be deprived of membership by retro-active amendment, and that all ruling by congress to the contrary is unconstitutional and, therefore, null and void.

Items of Interest

THE PHILLIPS FLASHLAMP, BY HENRY F. RAESS.

Photographic progress from its very inception, has almost always been dependent upon the amateur. In those cases where the professional possessed the necessary mechanical or chemical knowledge and ability, something unusual could be anticipated. The latter statement is borne out by the Phillips flash lamp. The need of a reliable lamp has long been felt by the users of compound flash powders. The lamp is the work of a practical newspaper photographer.

Many forms have been designed, each more or less a step towards perfection. The Phillips lamp is the result of experiments covering many years and the suggestions made by confrères. While it was originally made for newspaper work, it is equally serviceable for the amateur's requirements. Some of the advantages are, ease of inserting the fulminating cap, this can be done quickly even in the dark without any difficulty. The ignition of the powder is certain. The lamp cannot "go off" accidentally; the "trigger" has to be pulled down all the way before the firing pin is released. The lamp has already been adopted by the photographers of the *New York Herald, New York World, New York American,* and the American Press Association.

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CORRECT EXPOSURE FOR SNOW SCENES.

An Open Correspondence.

MR. PHIL M. RILEY,

DEAR SIR:

I see in the February number of the TIMES, an article under your signature about winter photography and I quote.

"Of course the light is lower and less actinic in winter than in summer, yet the light reflected by the snow so compensates for this loss that exposures are only a *trifle* more, *if at all.*"

According to the table as computed by Lieut. S. W. Very, U. S. N., the actinic light at noon in July is somewhat more than eight times as much as at noon in December.

Therefore it seems to follow if you and he are both right, that if an object (say a house) receives one unit of light in December from the sun, that it must receive seven times as much from some other source if it is to be as well lighted as in July, and you seem to say that it gets it from the reflection from the snow. Now it seems as if the snow also received only one unit of light and if so how can it reflect six times as much as it receives. I always supposed that no reflecting surface could reflect more than it received and that in fact it never reflected as much.

The jet black trees, houses and rocks in winter photos seem to indicate that the photographer relied far too much on the amount of light reflected from the snow.

For examples see most of the winter photos as seen in the TIMES for January.

Yours respectfully,

WILLIAM H. BLACAR.

February 19, 1912.

MR. WILLIAM H. BLACAR,
Bangor, Me.

DEAR SIR:

Replying to your letter of the 11th regarding my article in THE PHOTOGRAPHIC TIMES for February, entitled, "Photographing the Sports of Winter," the table you refer to, compiled by Lieut Very, seems to be somewhat contrary to general photographic practice and to the figures contained in some of the best exposure tables in general use which have given satisfaction for several years. While I do not claim that my

ratio of increase for winter light is absolutely accurate according to scientific photometric test, I do know that in average work it will give ample exposure, and it is my feeling that a ratio of 8, as suggested by Lieut. Very, would in most cases cause over-exposure. However, it is well known that the latitude of plates and films takes care of a considerable error.

According to the Burroughs Wellcome Exposure Calculator the increase of exposure at noon for midwinter over that for midsummer should be 10/7 times. The Photo-Beacon Exposure Guide, by F. Dundas Todd, calls for two times increase. Both Hammer and Ilford Plate Manuals and many much used tables and handbooks are based upon the light values recorded by Dr. J. A. Scott in "Anthony's Annual" several years ago. The table calls for a four times increase. This has given me good results and I adopted it in practice, using it in the Round Robin Guild Exposure Guide, which ran successfully in *Photo-Era* for about two years.

And now regarding the sentence you quote from my article. Perhaps it was not well put. What I really mean was that the color or whiteness of the snow was such that it required less exposure than earth or grass would, for instance, yet since all light which reaches the photographic plate is reflected light, perhaps I was not very far wrong. Alfred Watkins, than whom there is no better photographic expert, states that snow on the ground reduces exposure one-fourth, which with a four times increase for winter light brings one back to the summer exposure according to my arithmetic. All this is based upon noon and good sunlight both summer and winter.

As for the photographs in the January issue, I cannot say, for I made only one of them. That one was taken directly against the light and timed intentionally to accentuate the shadows. Exposure tables are based upon light shining from behind the operator and somewhat from one side or the other. When one works against the light and desires full detail in the shadows at least three times the normal exposure must be given.

Very truly yours,

PHIL M. RILEY.

MOVING PICTURES TAKEN BY NIGHT.

A surprising advance in the photographic art, says *The Inventive Age,* is marked by the production of moving-picture films by artificial light. We read:

"Flashlight photographs are common enough, but in all such work the subjects must remain still, and the results have by no means been perfect. The production of artificial light strong enough to cause the exact imprint of the image on the sensitized plate is not new, but the making of a perfect moving picture, which shows a number of objects in every detail, is distinctively new. With true Western hustle, a committee in Kansas City, who wanted to advertise their metropolis, determined to overcome the obstacles in the way of perpetuating the night parade on a certain festival. A platform twenty feet high was erected on one side of a street through which the parade was to pass. On this were strung sixty arc lamps in two rows, backed by a monster sheet-tin reflector, seventy feet long and six feet high. On the opposite side of the street was another embankment of light almost as powerful, so that for a distance of about 100 feet the street was brilliantly illuminated. The machines were started when the parade began to pass, and a film 600 feet long was made, showing every detail. Snapshots taken by private cameras were found to be as good as similar pictures made in daylight."

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VIEWING THE HEART BEAT BY X-RAY OR PHOTOGRAPHING THE HEART BEAT.

We have become so accustomed to the wonders which modern science has been enabled to accomplish by means of photography that we are no longer surprised when some new and important discovery is announced. The service which photography has rendered in its application to science within recent years has proved so invaluable that one may now with truth say that photography is become the hand maiden of science. However useful photography may be as a pastime or as an art, there can be no doubt that in conjunction with science it has rendered such invaluable service to mankind as to have become practically in-

dispensable. And in no other branch has it proved more valuable than in medical science. In this field it has added considerably to the lot of human happiness, since by its means operations have been made possible which were once considered impracticable and it has been of considerable help in the alleviation of suffering. In this connection one need only mention the discovery of the Roentgen rays and the various inventions to which it has led. The latest of these is a contrivance for photographing the beating of the human heart, which is in itself almost as astounding as the original invention. Although the new contrivance is of quite recent date, its practicability is proved by the fact that it has already been introduced into most of the important physical laboratories on the Continent.

Before proceeding to describe the method of photographing the heart beat it may be as well to initiate the reader into some of the mysteries of the invention. The patient whose heart is to be examined is ushered into a pitchdark room, from which every ray of light is excluded. Without removing his clothes or making any other preliminary preparation he is invited to sit down on an ordinary chair before a large glass bulb. Then the operator switches on the current, and in response the electric sparks hiss in the glass bulb, filling it with a pale green light Then the operator holds in front of the patient a plate which has previously been prepared with a compound of barium platinum. On to this is thrown a clearly defined image of the heart, and the electric rays are so arranged that the shadow of the rib bones is scarcely perceptible and does not in any way interfere with the examination of the fleshy mass forming the heart. So distinct is the image that one can clearly observe the opening and closing of the valve as the blood is being pumped through it. Needless to say the patient feels nothing whatever during this operation.

So far no photographic emulsion has been discovered which is sufficiently sensitive to record the movements of the heart as seen on the screen, though it is expected that before long it will be possible to transfer this action on to a cinematograph film. Because of this difficulty another means has had to be adopted, and the movement of the heart as seen on the screen is recorded on what is called an electric-cardiagram. In order to obtain this the patient has to place his bare arms in two large vessels filled with water. Into each of these vessels a copper wire is led, which is charged with electricity. Where these wires meet a very thin platinum wire is attached to them, resting within a highly charged magnetic field. As soon as the contact is completed this platinum needle begins to move, its movement being regulated according to the strength of the electric current passing through it. Since the human body is a conductor of electricity the contact circuit is made whenever the patient places his arms into the vessels of water in which the wires are led. It naturally follows that the movement of the needle follows the contraction and expansion of the heart, impelled by the electricity generated by the action of the muscles of the heart whilst performing its function. When these contractions are strong the swing of the needle is much greater than when the contractions are weak. Under this moving needle a photographic film is slowly passed and the light above it so arranged that a faithful imprint of the beating of the heart is recorded on the electrocardiagram. It is hoped that this new discovery will afford doctors the means of studying more carefully and closely the heart and its action, enabling them to treat more exactly the various diseases of the heart which have until now been more or less a mystery to them.

RICHARD THIRSK,
31 Augsburger Str.,
BERLIN, W.
GERMANY.

Photographic Reviews

PHOTOGRAPHY.

The important new work on Photography, by E. O. Hoppe and others, reviewed in the preceding number of THE PHOTOGRAPHIC TIMES, is meeting with appreciation on every hand, for it is a complete and succinct synopsis of photography in theory and practice. Each section is dealt with by a writer well qualified from long experience and reputation. The following are some of the press notices which this important work received when it first appeared in England:

SOME PRESS NOTICES.

"The work has been excellently carried out by a number of hands. * * * . The volume is as good as the photographic worker could desire, and it is well illustrated—a somewhat rare occurrence in photographic works."

—*Westminster Gazette.*

"For the present, and for some time to come, it will supply the would-be photographer with almost everything that he requires to know. The volume covers a much wider range than most treatises on the subject. An admirable survey of an art which covers an enormous field, its value is notably increased by a series of well-chosen illustrations."—*Scotsman.*

"An extremely valuable book of reference. The student of any branch of the art may consult it with the certainty of finding either what he wants to elucidate any particular problem, or else reliable direction as to where to seek for it."

—*Nottingham Guardian.*

"The volume is a decided acquisition. It forms one of the most useful and authoritative of reference books, and is one of the most complete works on the subject. The editing has been carried out with great skill and care. Every conceivable branch in the art of photography has received attention, and what is more to the point, the methods described are those employed at the present time. Handsomely bound and well printed, this volume is one which should be included in the library of every one interested in photography."—*Pall Mall Gazette.*

"The book is well printed, in good type, and from first to last is eminently a readable book, from which both the expert and tyro may learn many useful things."

The Rev. F. C. Lambert, in the *Daily Telegraph.*

"The Art of the Berlin Galleries," by David C. Preyer. L. C. Page & Co., Publishers, Boston, Mass. Net, $2.00.



THE HERMIT
Illustrating "The Art of the Berlin Galleries."

This book has a striking cover, with the German coat-of-arms in three colors, and is beautifully illustrated with many full-page half-tones in sepia. It is worth having on your library table just for these alone as well as for the great historical interest and information we find in the text concerning the paintings in these wonderful art galleries. The book covers the work of artists dating from the fourteenth century to the eighteenth, and takes up all the different schools of painting in detail, including Italian, Spanish, French, English, Dutch, and German.

Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

SENCO ROLL FILM CAMERAS.
THE LATEST PRODUCT OF THE SENECA CAMERA MFG. CO.

The present year marks the addition of Roll Film Cameras to the marvellous Seneca line. Designed only for spool or roll film, these dainty little instruments appeal altogether to the amateur and tourist. With the addition of this link the chain of Seneca cameras is now complete. They include in their list cameras of every style and design from the diminutive box for the small child to the complex studio outfit of the master.

Senco Roll Film Cameras are very easy to load any time, anywhere, in the daylight or dark. They carry six or twelve exposures as the operator may desire; are compact, light, and possess an individuality and elegance of finish all their own. The faster lenses and faster films of today have made this style of cameras immeasurably better in theory than it was a few years ago; and the Seneca people have made the Senco Roll Film Cameras immeasurably better in reality than any instruments of this style that the market affords. The point should be emphasized here, that these cameras are confined to the accommodation of spool films. The film pack and plates cannot be used. Again, there is no ground glass for focussing, a feature so desirable in landscape work, portraiture and composition. Manufacturers who make spool film cameras only emphasize the fact that this style of photographic instrument is the daylight camera. It is. In that lies one of its greatest advantages.

The design of the film chambers in the instrument, the security—the absolute light-tight character of the protecting walls—the unique device for holding the spool which cuts down the time of loading to one-half—are some of the more marked features of individuality and excellence. The back of the camera is hinged, and is an integral part of the instrument—a distinct advance in constructive design over other spool film styles. Made of aluminum, thereby making them light in weight. They are covered with genuine seal grain leather and the metal parts are nickeled. The lens and shutter equipment are well calculated to keep these instruments in front, and unsurpassed in the trade—thus opening the way for anyone without previous photographic experience to obtain a convenient and satisfactory camera for amateur work. Of course, it should be clearly understood that Senco Roll Film Cameras accommodate any roll film of standard manufacture.

Full descriptive matter of Senco Roll Film Cameras may be obtained by addressing Seneca Camera Mfg. Co., Rochester, N. Y., and mentioning this paper.

⁂ ⁂ ⁂

Tozol, the new developing agent of the Eastman Kodak Co., is especially noteworthy for its simplicity. Only the addition of sodas, bromide and alcohol is required to make a solution which is economical as well as excellent in its vigor of developing action and strength and brilliancy of tone. It is sold at any dealers in varying quantities from an ounce at twenty cents to a pound for two dollars and fifty cents. We also wish to direct our readers' attention to the Eastman Kodak Co.'s latest Seed plate. These plates cover all kinds of photographic work, speed, pictorial work and interiors. Beside their versatility the results obtained are satisfactory and are well up with the high standard of excellence which the Eastman Kodak Co. has always maintained.

APPRECIATES "THE TIMES."

Editor of The Photographic Times,

Dear Sir: Being a reader and subscriber of THE PHOTOGRAPHIC TIMES, I am taking the pleasure of writing a few words of appreciation. I appreciate reading the TIMES, and looking over the photographs with their full description contained therein.

I am sending you, herewith, two post card pictures, which I should like to have you criticise in the next issue of THE PHOTOGRAPHIC TIMES.

Yours very truly,
CLAUDE M. CHEESMAN.

MILAN, KANSAS.

(The Post Cards which Mr. Cheesman sends us with the above letter are very good examples of amateur work; the picture of the house being particularly well timed and developed. The portrait group on the porch is not quite so good a picture, being a little too "flat," due, we should say, to over-exposure. We hope Mr. Cheesman will try again, and send us some other specimens of his work. *Editor of The Photographic Times.*)

⁂ ⁂ ⁂

Among the many catalogues which we have received lately we notice one of The Taylor-Hobson Co., just out. It contains a carefully compiled list of their many and varied lenses with a precise description of each. After reading over this catalogue one cannot help but feel that The Taylor-Hobson Co. are satisfied only with the best, and have for their ideal the result of the most painstaking experiment and search. We quote the following extract from their catalogue:

"Cooke anastigmats are imported direct from the model factory of Taylor, Taylor & Hobson, at Leicester, England, where conditions of labor are perhaps unique. Having grown up with the business, the workmen have gained long years of a peculiar training, and have become highly skilled specialists. Their tools and appliances are instruments of precision in a rare sense, while the microscopic tests are of the most sensitive nature. The *Standard of Excellence* is of the highest. Evidence of this is found in the outward finish of each lens-mount. A plate properly exposed, forms proof."

⁂ ⁂ ⁂

We make the announcement that Chas. S. Willoughby known commonly among the trade as Willoughby and a Square Deal is about to move from 814 Broadway to 810 Broadway. They were at 810 previously, in 1907, before they moved to their present quarters, but since then a large and modern building has gone up, and owing to great increase in business they will now occupy three floors instead of one.

⁂ ⁂ ⁂

NEW MATERIALS, ETC. AGFA KAPSELBLITZ.

Under this name an extremely convenient and portable form of flashlight is just being introduced by the Agfa Company. The flash powder is contained in a triple tin case about the size of an ordinary walnut. It is sealed with a strip of adhesive plaster, which keeps the contents perfectly dry. On removing the plaster the two constituents of the flashpowder (the magnesium powder and the oxidizing chemical) are found separate in the case, the chemical combustant being contained in an inner capsule which forms an additional preventive of the access of damp. The two are simply mixed together by shaking in the outer capsule, when the operator obtains the flash-powder in a perfectly fresh condition for use. The mixture is ignited by means of a strip of touch paper, a supply of which is contained in each package, and the result is an actinic flash which is highly efficient for flashlight portraiture. We should add that attached to each capsule is a thin strip of soft metal by which the capsule can be attached to any convenient support, and thus readily placed at a height necessary for the exposure. The "Kapsels" are supplied at the price of 10 cents each, $1.00 per box of ten. They are a most practical addition to the many reliable requisites for flashlight photography which the Agfa Company have prepared and marketed within the last year or two.

⁂ ⁂ ⁂

The Wollensak Optical Co. are distributing among their customers one of the most elaborate and artistic catalogues we have

had the pleasure of seeing in some time. The above is a reproduction of the cover of the Hammered Art Mounts, which is printed in gold and embossed, and there are 32 pages filled not only with the articles found in the previous catalogue, but also the new products which Wollensak is getting out, such as the Vesta Portrait lens *f*5, series II. Velostigmat *f*4.5, Verito Diffused Focus lens *f*4, and their very excellent Ray Filters, made from 1¾ inches to 4¾ inches. This booklet is gotten up in a practical and costly way and certainly reflects a well deserved prosperity on the part of the Wollensak Optical Co.

⁂ ⁂ ⁂

The January issue of the *Photographic News* says:

Announcement has been made by the importers of "Metol" to the effect that the price of this standard commodity has been reduced materially.

For practically two years the makers of "Metol," which is a German product, have maintained their prices. Now, however, the greatly increased demand for "Metol" on the part of the motion picture interests has compelled the manufacturers to seek means by which "Metol," which is related to the expensive coal tar products can be produced at a price which would warrant a reduction in the selling list. Recently this has been accomplished and as a result of continuous experiment and the discovery of a much quicker process in distillation, the present decrease in prices comes.

Two German companies control the production of "Metol," these companies being among the largest manufacturers of photographic chemicals in the world. Their attitude toward the photographer has always been progressive and this latest move is an indication of the German system, which at all times tends toward an equitable relation between manufacturer and consumer.

WHAT BERLIN ANILINE WORKS SAYS:

George L. Barrows, chief of the photographic department of the Berlin Aniline Works, when asked by a representative of the *News* for a statement with reference to the reduction in price of "Metol," said:

"Since its first introduction upon the American market, 'Afga Metol' has enjoyed a steady and increasing demand. Our sales for 1911 were greater than ever before, due to the almost universal use of 'Metol' as a developing agent in this rapidly growing field.

"This has resulted in marked attention being paid to the production of 'Metol' by our house, Actien-Gesellschaft fuer Anilin-Fabrikation, and we have recently been instructed to reduce the price according to the new list which is now being mailed to all consumers. We are particularly gratified over this reduction as it enables us to meet the prices quoted on other chemicals said to be of identical character, produced by houses which have recently started to make photographic developers. Our preeminence in the production of standard 'Metol' and the large quantities we produce assure the photographer uniformity and absolute chemical quality. Therefore, we are convinced that those workers who have used 'Agfa' products in the most critical work will welcome the action we have taken in making the marked price reduction operative on March 1st."

The Photographic Times

SUBSCRIPTION RATES one dollar and fifty cents a year, payable in advance. Foreign Postage 50 cents, Canadian Postage 25 cents. Single copies 15 cents. Subscriptions to the *Photographic Times* received by all dealers in photographic materials in this and foreign countries, also the American News Co. and all its branches.

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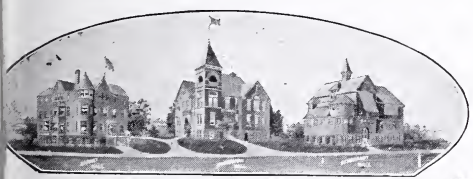
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Advertisements for insertion under this heading will be charged for at the rate of 25c a line, about eight words to the line. Cash must accompany copy in all cases. Copy for advertisements must be received at office one week in advance of the day of publication, which is the first of each month. Advertisers receive a copy of the journal free to certify the correctness of the insertion.

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PHOTOGRAPHY

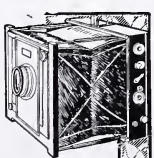
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Outfits a Specialty.

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We move to **810 BROADWAY, May 1st.**
Send stamp for Removal Photographic Bargain List No. 123.

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Why pay exhorbitant prices for your photographic accessories when you can obtain from us everything you need in your photographic work—whether amateur or professional—at greatly reduced prices.

New BARGAIN LIST just off press. Send for copy to-day

New York Camera Exchange 109 Fulton Street, N. Y.

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

TWENTY-FIVE YEARS AGO.

Some of us remember the bulky apparatus of twenty-five years ago, when amateurs were few and the methods of photography were complicated and beyond the average person who had a little time to devote to a hobby. Some of us still have the old cameras which were carried in their heavy wooden cases, but they are in the attic beside the spinning wheel and other relics of bygone days.

We are reminded of the wonderful progress in photography by an article which appeared in one of the Trade Journals of 1886, describing a wonderful miniature camera, which was to put photography within the reach of everyone. The interesting description of the camera follows:

"The camera bellows is nothing more than a heavy brown-black paper box made in two folds, the whole when fully extended measuring about three inches. The front portion of the paper bellows is pasted over the edges of a rigid sheet of straw board, cut to the size of the sensitive plate, thereby forming the camera front, and in the center of this is an aperture of about a quarter of an inch diameter, covered by a film of ruby and green colored isinglass, pasted on the inner face of the front. A minute needle hole is punctured through the center of the thin isinglass which forms the lens. The aperture is closed on the outside by a gummed paper flap. Cemented to another straw board, forming the back of the camera, is the sensitive dry plate. The back portion of the paper bellows is then pasted over the back of the camera the same as the front. We then have a light, tight paper box, the front provided with a pin hole and the back with a sensitive plate.

When the folds of the paper bellows are pressed inward making the front and back come together, the thickness of the package does not exceed half an inch, and measures 3¼ x 4¼. An angle of 100° is included in the picture, and the focus is 3 inches. It will be seen that its compactness makes it very handy to carry. Several cameras can thus be readily taken in one's pocket, since they occupy scarcely any more space than the sensitive dry plate itself.

In making an exposure, the bellows is extended, and the miniature box is set upon a post, chair, or any convenient support, the front being turned toward the object to be taken. The small wafer of paper covering the aperture is turned down and an exposure of from one to two minutes is given, according to the light. Upon its completion, the wafer cap is turned back over the aperture, and the box compressed into its original compact form.

The peculiar advantages are that with each plate is furnished its own camera, so that both are always ready for immediate use. No focusing or adjusting is required.

It is expected that the novice will take the plate after exposure to a professional photographer for development and the finishing up of prints. The low price at which the camera is sold complete, ready for use, puts it within the reach of everybody, and we expect it will be the means of educating many who will eventually take up the practice of the art with more expensive apparatus."

It is needless to say this crude camera never became popular—could not have become popular, for the principle was wrong. It was the Eastman Roll Holder and Negative Paper, then on the market, that were to develop into the Kodak and Eastman N. C. Film, and to-day, just twenty-five years later, we can truthfully say—"The whole world Kodaks."

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

A NEW MASK.

A neat white margin around a Velox print adds much to its attractiveness, whether the print is left unmounted or mounted in an album.

Most albums are made with dark leaves and the white margin gives the desired relief to the print. The unmounted print also has a much more finished appearance when the margin is properly trimmed.

With the opaque paper mask, there is quite a bit of trouble in adjusting it properly and quickly, as the edge of the negative cannot be seen through the mask and a little slip one way or the other in placing the back in the printing frame exposes a part of the clear margin, and a black line on the print is the result.

The new Eastman Transparent Printing Masks overcome this difficulty and make the printing of white margins much more certain and easy.

They are composed of a material similar to the transparent film base, only much heavier, and being orange in color, give perfect white margins in printing at the same time allowing one to see the entire negative while the mask is being adjusted.

The mask may be placed so there is an even margin of the negative under each of the four sides, and a little slip one way or the other is not so apt to cause the printing of a black line.

The masks are also far ahead of the paper masks as to durability. Paper masks are easily torn or crumpled up, rendering them unfit for printing purposes, while the Eastman Mask, with reasonable care, will last for years.

These masks are not only furnished at a few cents each for all the various sizes of film and plate negatives, but may be had in blank sheets to allow of one's making any odd size of mask for special printing.

Ask your dealer to show you the Eastman Transparent Printing Masks.

CARE IN SELECTION.

The pleasure we derive from photography depends to a great extent on the care and judgment we exercise in the selection of proper materials to work with. The following extract from an article in January Camera Craft, "The Joy of a Camera," gives the experience of one amateur who failed to give proper care to the selection of a Plate Tank.

"Like many another who has read of their great convenience, I wanted a developing tank, and recently bought one holding six plates, also a washing and hypo box. But though the tank is all that is claimed for it by the manufacturers, and my plates show a marked improvement, I made a great mistake in not getting one that is reversible. With mine, following directions, the plates must be removed and reversed every eight minutes, and that must, of course, be done in the dark-room. The developer that I use is diluted for forty minutes development, which necessitates only five trips up a particularly steep flight of stairs. The three articles, developing tank, washing and fixing boxes, cost exactly what one good reversible tank would, one holding twelve plates which could be reversed, washed and fixed, the happy owner sitting comfortably reading meanwhile, merely reaching out occasionally to give the tank a gentle jog; a somewhat more enjoyable pastime than climbing up and down a flight of stairs."

The Eastman Plate Tank was made with the idea of overcoming all the objectionable features of the dark room and tray development, at the same time making possible the use of a developer, slow enough in its action to produce an image of fine grain and delicate detail.

Professional photographers were quick to see the advantages of a plate tank that could be loaded with a dozen plates and which only required revers-

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

ing three or four times during the time plates were developing.

The theory of tank development is right—it is an admitted scientific fact, and is being used by the majority of professional and amateur photographers to-day. The slow working, well balanced developer has every advantage over the stronger developer, but there are two reasons why it is not practical for dark room development. First, the length of time required to develop makes hand development tedious and slow. Secondly, the length of time necessary to complete development with the slow working developer usually results in fog from the dark room light.

The strong, quick working developer necessary for dark room work produces a coarse grained negative, lacking in gradation and detail. The well balanced, slow working developer, recommended for use in the tank, preserves all the gradations and detail and gives a negative of much finer grain. Since tank development is the most convenient and practical method to use, the question then arises, "what kind of a tank shall I buy."

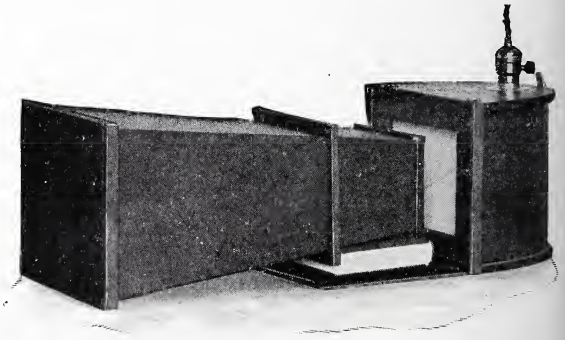
The Eastman Plate Tank is correctly constructed, being reversible. The nickel plating insures the chemicals used in developing from suffering by contact with the tank or plate cage. The tank must be kept clean, however, the same as one would keep their developing trays clean, if they would secure the best results.

Tank Developing Powders prepared especially for use with the Eastman Plate Tank insure the best results. They are compounded from carefully tested chemicals—their action is positive. A perfectly balanced developer can only be made when the chemicals used are of certain strength and purity. Be sure you buy Eastman Tested Chemicals.

Enlarging Simplified

Enlargements by daylight with the Brownie Enlarging Camera alone—enlargements anytime by the aid of the simple

Brownie Enlarging Camera Illuminator



Brownie Enlarging Camera in use with Illuminator.

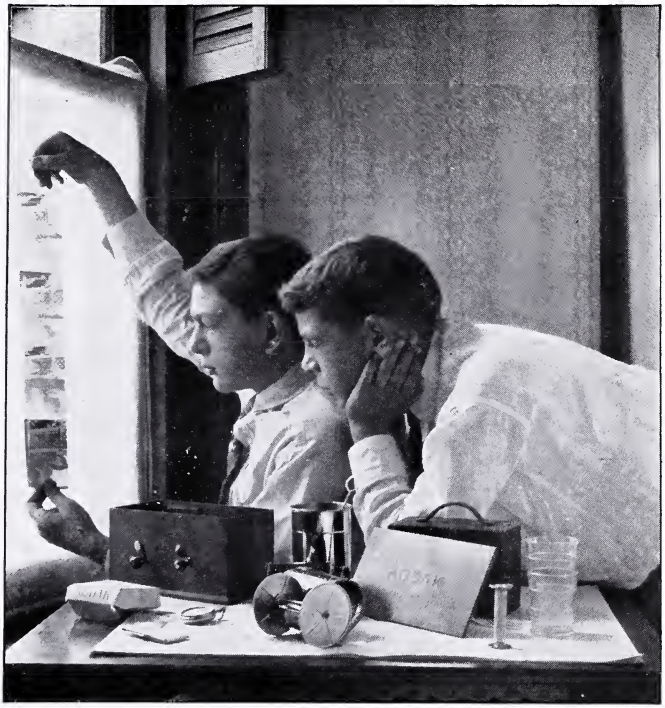
The Illuminator is not only for use with the Brownie Enlarging Camera but is exceedingly practical for the amateur who wishes to make enlargements with a small camera.

It is an ideal light for making Velox contact prints and is fitted with orange screen for use in developing same.

THE PRICE

Brownie Enlarging Camera Illuminator (without lamp or socket attachment), $3.00.

The Kodak Film Tank way is the simplest way—the best way.



Added to the pleasure of doing ones own developing is the satisfaction of doing it better when the Kodak Film Tank is used.

The dark-room with its many causes for faulty manipulation is eliminated. One may develop anywhere with a Kodak Film Tank.

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These and many others have all the "Seed Quality" characteristics.

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full of detail, depth and gradation are only possible with plates that are rich in silver, pure in chemicals and perfect in emulsion. **Hammer Plates** are all these and more. That's why they hold the record of efficiency over all others.

For extreme speed and quality use **Hammer's Special Extra Fast** (red label) or **Extra Fast** (blue label) **Plates.**

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Hammer's little book, "A Short Talk on Negative Making," mailed free

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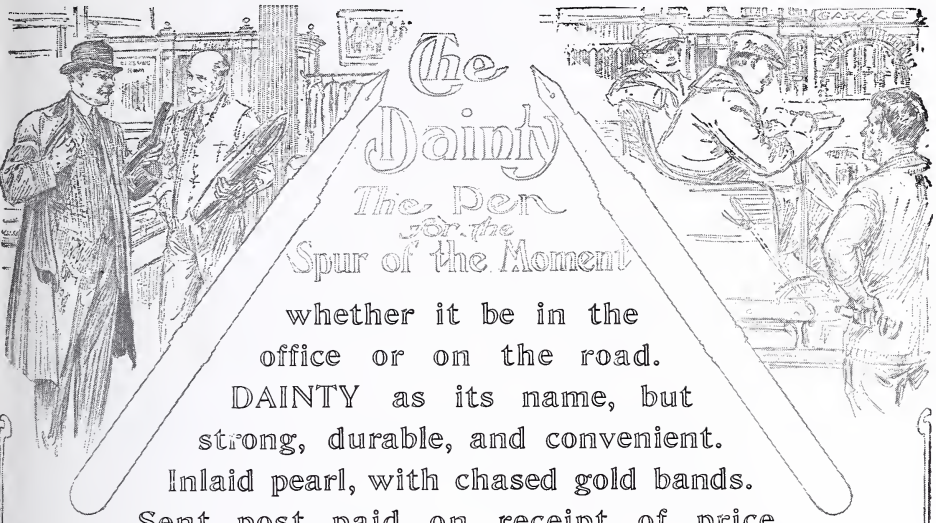
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Least bother—most economical—best results.

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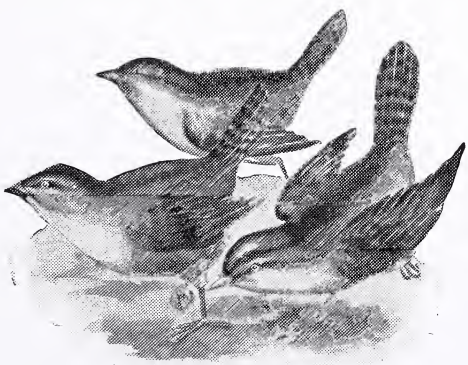
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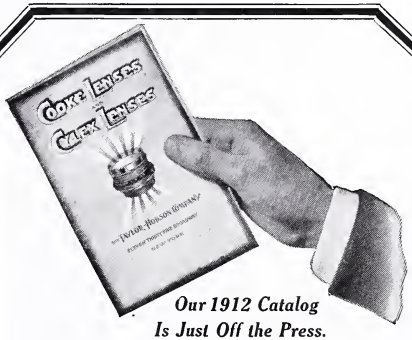
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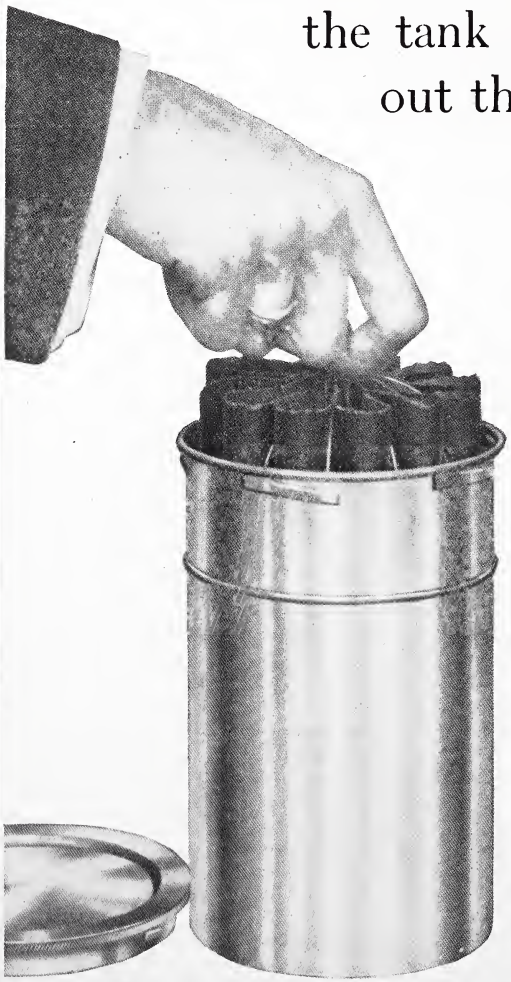
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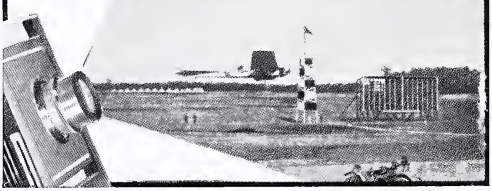


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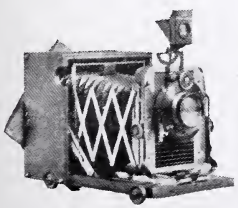
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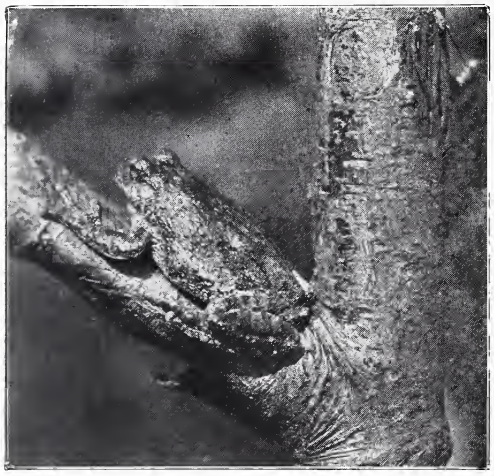
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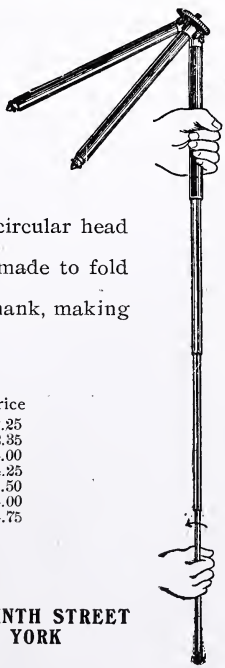
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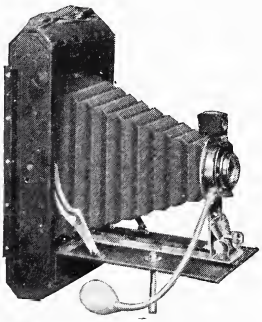
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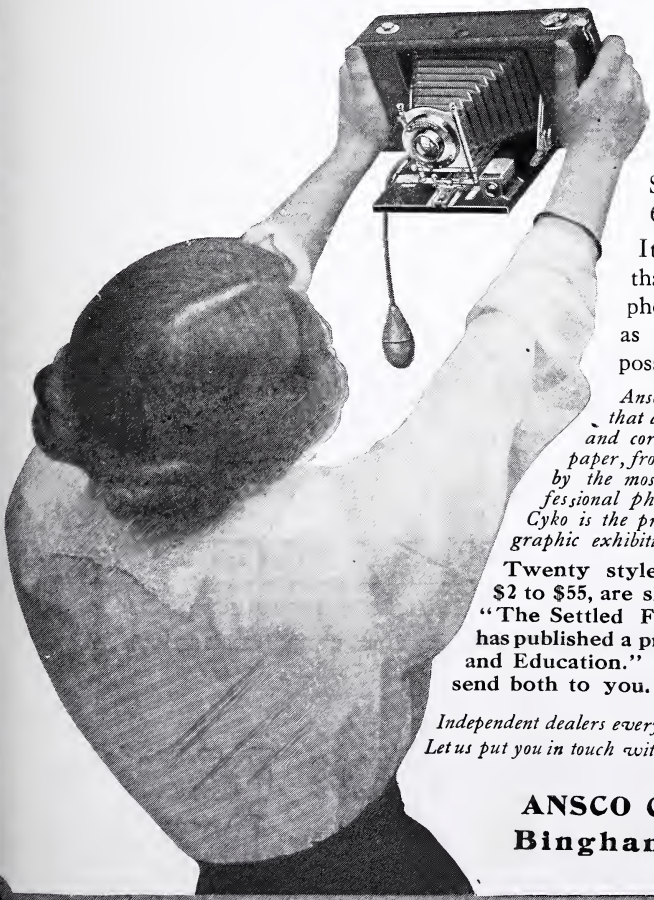
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WHITE PEACOCK, ISOLA BELLA, LAKE MAGGIORE, ITALY (Fig. 3) *Miss L. Murray*

The Photographic Times

VOLUME XLIV MAY, 1912 NUMBER 5

NEWS FROM THE CONVENTION CITY



THE life of the Philadelphia photographer is a strenuous one at present. Meetings, dinners, and entertainments have followed each other in such rapid succession that he looks back at the time when he could spend two consecutive evenings at home, as an idyllic existence of the past.

Apparently it is no easy matter to bring a convention to a big city. Arrangements are made much more easily in smaller towns. The men who are responsible for the selection of this year's convention city promised a free hall to the National. They thought it would be an easy matter to persuade the city officials to extend this hospitality to the photographic fraternity, but they soon realized that all labor in that direction was lost. They found the Mayor "unprogressive," the Aldermen deficient in enthusiasm, and the city void of any municipal building available for such a purpose. So the burden fell upon the shoulders of the Philadelphia boys. With true heroism they went to work and hired Horticultural Hall at about a thousand dollars. And this was the cause of the long never-ending train of festivities in the City of Brotherly Love during the last three months. Funds had to be raised, not only to cover the rental of the hall, but for actual entertainment purposes.

So a relief corps was organized, which has been in active service ever since under the name of Entertainment Committee of the Philadelphia Photographers. They met regularly every week or so, either at Goldensky's "fountain," in Rau's "coal bin," Phillips' "vestibule," or "in the slums," at Kubey's Fifth and Green establishment.

Their campaign embraced four successive engagements. An exceedingly well attended ball at the Lulu Temple proved a decided financial success. A smoker at Goldensky's studio at five dollars per ticket followed. Then the Prices of Mount Airy, actors of no mean ability, gave a performance of "David Garrick," at the Mercantile Club, and a euchre party under the generalship of May Carnell took place at the Hotel Walton. Messrs. Thode, of Curry & Co.; Wunderlich, of Haworth & Co.; Fenner, of the Collins Mfg. Co.; and Carrick, of the Cramer Plate Co., have lent a willing hand on every oc-



ROAD BY THE LAKE Illustrating "Now Is theTime to Get Busy." *Harry A. Brodine*

casion. There is some money in the exchequer now, and more to be added in the near future.

The Entertainment Committee is as cheerful and active as ever, and unless the manufacturers and stock dealers should get tired of responding to the everlasting pleas and requests for contributions, the entertainment funds will reach the highwater mark of expectation.

No doubt, the National Convention of this year will be a great success from the viewpoint of good fellowship. It is predicted that the attendance will be the largest of any convention ever held. But what will be the actual benefit that the members and associate members derive from their visit to Philadelphia in the hottest month of the year—beyond an outing! The two main features on the programme are a "dip into the ocean" at Atlantic City (on the second day), and a picnic that will occupy the afternoon and evening of another day. There is nothing of special interest offered in the way of lectures and demonstrations.

Alfred Stieglitz, apparently, will be the principal lecturer. His lecture or rather talk will probably not appeal to the many. There is no doubt that Stieglitz occupies an exceptional position in the domain of pictorial photography; but that he has much to say of any practical value to the average professional is questioned by a good many. His attitude towards the professional photographer has been one almost of contempt. He professes to recognize only art for art's sake and upholds the semi-professional as the only true photographic workman against thousands of serious professionals and aspiring amateurs. We wonder if his own pictures, or those of Steichen,

White, *et al.*, will really interest the profession at large. His talk should prove interesting though we remember how upset he was at Mrs. Kasebier's attending a convention a few years ago.

The principal demonstration is to be in gum printing. Another grave mistake. Of what use is the process of gum printing to the average gallery owner of the smaller towns! And if the technique is as artistic and intricate as it is said to be, it surely can not be taught within a week, of which two days are to be spent at the seashore or in the cool shade of a picnic ground.

Great dissatisfaction has also been expressed about the rules that govern the picture exhibit. American photographers are invited to contribute two prints only, while European photographers are asked to exhibit in groups. It is quite natural that many of our leading photographers will object to this distribution of space, as two prints fail to represent the work of any man, and surely do not offer him the proper chance to compete with the carefully selected group exhibits of the foreigners. Surely some of our topnotchers would make as good, if not a better showing than some of the Europeans. Why not honor twelve of our best man by a special invitation? Apparently no convention officer feels sufficiently bold and independent to make the necessary selections. Conventions are run very much on the same principle as art museums. The less a museum director does, the less he is open to criticism. This also seems to be the policy of convention officials, and as long as this policy prevails, conventions will be little more than social gatherings of no importance whatsoever to the more serious aims and ideals of the profession.



WINTER IN THE BRONX WOODS Illustrating "Now Is the Time to Get Busy." *Harry A. Brodine*

GORDON'S FEET

A Note on Focal Length.

With Illustrations by the Author.

BY ARTHUR HAMMOND.



AMONG my stock of miscellaneous negatives I found the two from which the accompanying prints were made.

These two pictures, rather similar in subject, illustrate in a very satisfactory way the utter absurdity of the oft repeated statement, "The camera cannot lie."

The camera can lie, and will lie unless the user of it takes good care not to let it lie.

It is not the fault of the poor camera, for, after all, it is but a machine and its eye, the lens, has no accommodating brain behind it. It sees things and depicts things as they are, and not as we imagine they ought to be.

Fig. 1 is an enlargement from a film negative taken with a Brownie No. 2.

Now, I know Gordon's feet are not like that, but that is the way they looked to the Brownie lens and therefore, like a conscientious workman, the Brownie lens drew them as they looked.

Fig. 2 was taken on a 4 x 5 plate, with a lens of 11 inches focal length and the proportions are far more natural.

But, this is the point, the absurd perspective and foreshortening in Fig. 1 are not due to the use of a short focus lens, the reason is that the lens was too close to the sitter. If the picture had been taken from about the same distance as the other picture. The drawing and perspective would have been every bit as satisfactory and Gordon's feet would have looked like human feet, but the figures would have been much smaller on the film and there would have been a lot more background. This could easily have been remedied, of course, by enlarging only a portion of the picture instead of the whole of it.

In "The Artistic Side of Photography," Mr. A. J. Anderson says:

"In photography the drawing is performed automatically but it depends upon the station point of the lens whether the drawing appears natural or unnatural, the perspective pleasing or exaggerated and the foreshortening true or false.

"If we realize that the station point of the lens is everything and the focal length of the lens affects only the size of the image, we shall save ourselves trouble and confusion."

There is no reason therefore why we should not use short focus lenses which have certain advantages as regards depth of focus, but when doing so



(Fig. 1) *Arthur Hammond*

we must always avoid the all-too-common mistake of getting too close to our subject in order to get it large enough to fill the plate. We must be content with small pictures, which can be enlarged if necessary, and we shall often have to waste a portion of our plate or film and include a great deal that we do not want.

The advantage of a long focus lens lies chiefly in the ability to secure a larger image without having to get too close to the subject. We get, as it were, an enlargement of a portion of the picture that we should get from the same viewpoint with a shorter focus lens. On the other hand, a long focus lens requires more care in focusing for we do not get so much depth of focus and therefore it is not so well adapted to the method of focusing by means of a scale and pointer. Used on a view camera or a reflex, however, this trouble is done away with to a great extent.

The focal length of a lens is, of course, purely relative to the size of the plate.

My 11 inch lens, for instance, the one with which Fig. 2 was taken, will cover an 8 x 10 plate, but, if, when using it for a plate this size, I were to get so close to my subject that it filled relatively as much of the picture space as it does on the 4 x 5 plate, I should get just as absurd a result with this lens as I got with the Brownie.

The focal length of the lenses generally fitted to Kodaks and other cam-

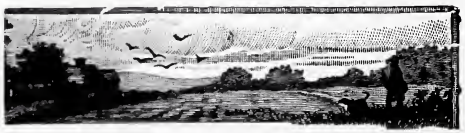


(Fig. 2) *Arthur Hammond*

eras is usually a little longer than the longest dimension of the plate or film; 6½ inches for 4 x 5, 8 inches for 5 x 7, and so on, and such lenses are perfectly satisfactory for general all-around work. I have a personal preference for a relatively longer focus lens and I generally use one of 9 inches or 11 inches for a 4 x 5 plate, there are many occasions, however, when the shorter focus lens is to be preferred.

For purely pictorial work no doubt the longer focus lens is to be desired but really any lens will do provided one will always keep in mind the fact that distortion and violent perspective are caused by a too near station point and not by any fault in the lens.

It is better to get a small picture that is good than a larger one that is merely grotesque, and an enlargement, or even a simple contact print from a portion of a negative will often demonstrate the truth of the apparent paradox, "the part is greater than the whole."



PROGRESSIVE PICTORIALISTS

BY SIDNEY ALLAN.

With Illustrations.



THE GIRL WITH FAN (Fig. 6) *Anna C. Ray*

MUCH credit, at all times, must be given to those camera workers who see and record new things or who treat old themes in a novel manner. Every exhibition produces a few new men, and a few advances in the work of the older talents. There was an unusual number of interesting prints at the Seventh Annual Exhibition of Pictorialists of Philadelphia.

Mike Robinson was amongst the "discoveries" this year. Two of his prints, "Anticipation" and "In the Light of the Twentieth Century," attracted considerable attention. He apparently follows French pictorialists in treatment and the selection of his subject. Fig. 1 shows the influence of Demachy and Fig. 11 of Debreuil. To show a group of thirty or more people is quite an undertaking and he has solved the problem in a halfway satisfactory manner. The grouping is picturesque but does not explain itself, and there is no special feeling for line arrangement or any division of light and shade. It is astonishing how many pictorialists make a good start and just miss it. Few people in looking at the picture will know what it really represents. There is a sufficient amount of "anticipation" displayed, but one has to guess as to what purpose. The writer of these lines is in the dark just as much as anybody else. This is the principal shortcoming of this picture.

Fig. 2 is a bold attempt to delineate the peculiarity of modern light conditions in a large city at night. Its effect is startling and that is the merit of this picture. There is little composition about it. It is really only a record. The viewpoint is well chosen as far as representation of the tower is concerned, the rest is a mere jumble. One might argue that it is true to prevailing facts. To be sure, it is realistic and impressionistic if you like, but it is not a picture that one would care to hang up on the walls of one's room. And that is after all the criterion for all pictorial work of lasting merit.



ANTICIPATION (Fig. 1) *Mike Robinson*

Miss L. Murray has selected such a subject in her "White Peacock." frontispiece. The motif had decided possibilities. Somehow the lady did not succeed in carrying out the poetical element that was suggested by the subject. She tried for a light and shade composition and was skilful enough to concentrate the sunlight on the peacock, which of course had to be the principal point of interest in this arrangement. Apparently the sunlight played her false, no doubt it was too intense and in consequence the shadows turned out too opaque. Otherwise it is a most meritorious effort. The spacing is almost faultless and the subject of the kind that would please everybody if it had been successfully carried out. We no doubt will hear of Miss Murray again. She has gone far in a short time, and no doubt will appear at some other occasion with much stronger work.

Street scenes, in recent years, have become quite the vogue. They are the true domain of the snapshotter. Wherever one turns there are scenes of traffic that lend themselves easily to pictorial delineation. The subject is ready at all times and it only needs composition "by the eye" to select the most picturesque fragment of the scene. Of course, if one wants to make a serious composition, one should have seen the scene before and studied it under various light conditions. "Queensboro Bridge," Fig. 5, by Dr. D. J. Ruzicka, is not an accident. He is known as a first-rank picture-maker and he generally lives up to the level which he has set for himself. There is little fault to find with his "Queensboro Bridge," except that it impresses one as being rather monotonous in values. Technically it owes much to the use



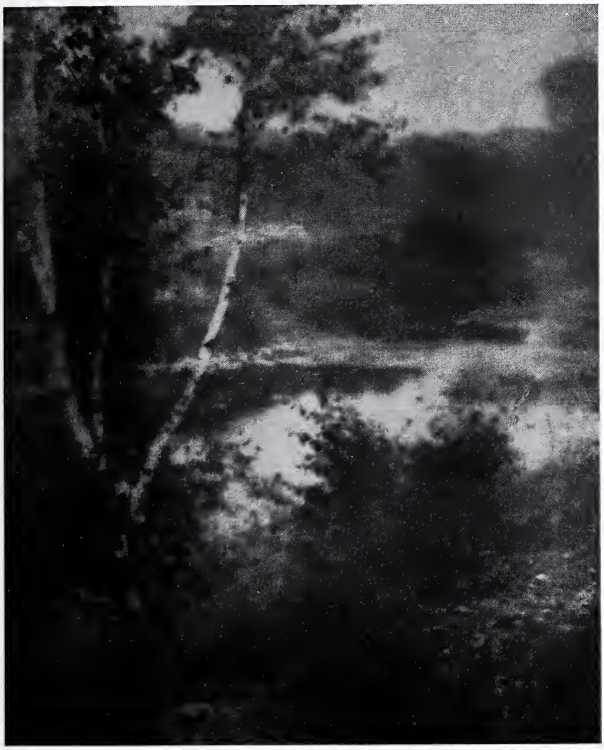
IN THE LIGHT OF THE TWENTIETH CENTURY (Fig. 2) *Mike Robinson*



QUEENSBORO BRIDGE (Fig. 5) *Dr. D J. Ruzicka*

of exactly the right stop in the lens and to focusing on exactly the right point. The finding of such a subject emphasises the old dictum that pictorialism is discovered only by the eye that has learned to see, and reminds us that the photographer in quest of picturesque effects could not be directed to so-called beautiful views but rather to the byways, to nooks and corners hidden from general observation. The placing of the figures is rather spotty. The three men with the wheelbarrows produce a good effect of repetition, but it is disturbed by the other figures. The structure of the bridge looks as if it were wrapped in mist, but this is due rather to the elimination of details (caused by the enlargement) than any actual aerial quality.

The other street scene, entitled "The Morning Chat," Fig. 4, by Miss Alvina Frahm, does not mark her particularly as an original seer. It is the same old theme over again without any element of novelty. But Scheveningen has a strange fascination for anyone who knows the place, and the simple motif has been treated in a quiet and pleasing manner. The houses to the left seem to be a trifle too small. There is no distance between the two standing figures in the foreground and the gray wall. The atmospheric effect is that of a gray day in Holland—it is doubtful whether this was intentional, but as there is no sunlight visible, it makes the impression as if it had been



THE BIRCHES (Fig. 8) *H. Oliver Bodine*

taken to convey that sentiment. The sky is rather luminous for a tonal composition but the effect has been saved by the characteristic skyline. The picture no doubt was accidental, a happy capture, rather than a piece of premeditated work.

The picture of similar quality is "Up in the Clouds, Mt. Washington," Fig. 7, by H. Wilson. Despite the stunning cloud effect, which really makes this picture pictorial, it is little more than a well taken view. The diagonal line of division is well handled, the carriage seems to be just in the right spot, but the large mile post is such a disturbing element (although a mere minor detail), that it almost spoils the entire picture. And without it the embankment would be too monotonous in line as well as in value.

Women seem to play a very important part in the pictorial photography of to-day. In every exhibit almost twenty-five per cent. are women workers. They go about it in a very serious fashion and help to introduce freedom, variety and individuality. This is particularly noticeable in portrait photography. A woman as a matter of course is not as active as men in going out-of-doors in quest of subjects, so she devotes more of her time to studio work. "The Girl with Fan," Fig. 6, by Anna C. Ray, is an excellent example. It is almost professional in finish, which is rare indeed in amateur work. The pose



UP IN THE CLOUDS (Fig. 7) *H. Wilson*
(Altitude 9900 feet. One mile from top of Mt. Washington)

has the charm of simplicity. It is good in line and the embroidery on the sleeve lends a certain pictorial effect to the whole arrangement. The flesh values of the arm and hand are too low in key and the shape of the hand is not a particularly pleasant one. But as an arrangement of a white figure against the white background it is exquisitely handled. The use of the shadow is most skilful as it softens the effect of the silhouette against the background. Miss Ray is in every respect a worker who takes her works sufficiently serious and tries her best to place it before the public at its own intrinsic value.

H. Oliver Bodine, of Rochester, N. Y., has made quite a name for himself for soft focus lens effects. There is nothing startling about his "Birches," Fig. 8, as far as composition goes, but it has a charm of treatment of its own. The print in question is perfect in its simplicity, harmony, and spontaneity of handling. One can show orginality, not only in the choice of subjects or composition, but also in treatment, and Bodine is a master in decorative placing of soft low-toned scenes. Everybody who knows something about Bodine's special method will realize that perfect prints of this kind are only achieved by scrupulous care in each instance.

All the pictorialists whose works have been discussed in this article, with the exception of Bodine and perhaps Miss Ray, show that the technical dif-

ficulties are still obvious and considerable to them. The impressions are worth registering, but there is seldom a feeling of finality about their results. Widely separated as they are in subjects, they all show an individual manner of treatment. They are alike in one respect, however, they do not use the whole available scale of tone. Several of the pictures in question have ample strength yet none of them seems to know how to deal with emphasis, that is, to use the highest and lowest notes to the best effect.

In conclusion, it may be said, that every careful student of pictorialism in this country will be pleased with the progress of local workers during recent years, of which the few mentioned in this article are not necessarily the foremost, but they represent a fair average by strength of their faculty of keen observation, combined with imagination and artistic inclinations.

[The picture by Miss Alvina Frahm, entitled "A Morning Chat," and referred to as "Figure 4" in our editorial review of the Philadelphia Exhibition of pictures, was withdrawn, at the last minute, by Miss Frahm, which accounts for its non-appearance in the article.—EDITOR.]



ALONG THE RAMAPO — *W. P. Romaine*

PRACTICAL NOTES ON BROMIDE PRINTING CONTROL

F. C. LAMBERT, M.A., F.R.P.S.



THERE is often a very great difference between "near enough" and "just right," *but* it often makes just all the difference between acceptance and rejection when the competition is keen—or success and failure in one's own estimation. With this notion in view I submit a few practical work-room notes concerning a number of recent experiments in connection with bromide printing; in fact one might group the notes under the title of "Aids to control of effect in bromide printing" or something of that kind.

(1.) It goes without saying that in a general way the slower the paper the easier it is to get good contrasts from a somewhat weak contrast negative; consequently we select a rapid paper for soft effects from a strong contrast negative. Gaslight papers, of course, give more contrasty prints than ordinary bromide from, let us say, a medium contrast negative.

(2.) Next with regard to surface of paper: a smooth surface not only shows up detail—often much more than is wanted for pictorial effect—but also gives darker shadow and so tends to accentuate contrasts. Moreover, a rough paper, by giving a little scattered light in the shadow, helps toward breadth of effect as well as luminosity or transparency of shadows.

(3.) Next comes exposure. That which is just and only just enough to give developable gradation in the densest parts of the negative (highlights), we may take as the working minimum. If this be exceeded considerably there will be a tendency towards reduction of contrasts, all other things being the same. Therefore, for accentuating contrasts keep just over the minimum. For soft contrast prints from contrastful negatives, we can reach a working maximum: beyond this again we suffer loss owing to flattening of contrasts in the lower tones and the loss here is greater than any probable gain in the matter of gradation in the highlights and upper tones.

(4.) To a certain, but not very great, yet useful-to-remember, effect we get more contrast by a long exposure far away from the printing light than a short exposure near the light. Theoretically one second at 1 foot, 4 seconds at 2 feet, 9 seconds at 3 feet, 25 seconds at 5 feet, and so on, increasing the exposure with the square of the distance, ought to give identical results: but bromide printers know that this is not quite the case. *E. g.,* 144 seconds at 12 feet will give a rather more contrasty print than 4 seconds at 2 feet, with a rather soft contrast negative.

(5.) If the darkroom is so small that we cannot get far enough away to have a sufficiently feeble light we can arrive at the same goal by another road, viz., by using one, two, or three thicknesses of thin white tissue paper



(Fig. A) *F. C. Lambert*



(Fig. B) *F. C. Lambert*

laid over the face of the printing frame, or use an opal glass lamp globe. These plans are far better than turning down the light for by this latter means we never can know if we have lit the same point twice.

With a soft contrast negative, such for instance as one that requires, say, 5 seconds at 4 feet from an ordinary No. 5 gas burner. I find that one thickness of tissue paper requires the exposure to be doubled (to 10 seconds) and that two thicknesses require it to be trebled to 15 to get fairly comparable results. This rough and ready way of stating matters is not quite scientifically correct, but it is near enough to give the intelligent worker his starting clue.

(6.) Everybody in these days knows that various developers work differently in the matter of detail and contrast.

I may quote the two formulæ which I have found the most useful in the matter of control.

A.—For soft effects; gray and delicate. Water, 20 ounces; soda sulphite, 1 ounce; soda carbonate, 1 ounce; (crystals in both cases). When dissolved filter or decant, and then add, metol, 20-25 grains.

B.—For bright effects; clear, and black. Water, 10 ounces; soda sulphite ½ ounce; amidol, 20-30 grains; potassium bromide, 5 grains.

These formulæ might be multiplied to almost any extent—with little advantage. But perhaps an *alternative to A* may be given for the benefit of those workers who are susceptible to metol poisoning of the fingers, viz.:

AA.—Water, 1 ounce; rodinal, 20-25 minims.

(7.) We may now pass to methods of modified development for obtaining soft contrast prints from plucky negatives. Expose sufficiently to penetrate the densest parts of the negative and then soak the paper in plain water for say a minute. Pour this away and apply a developer of the A, or AA. Type, but of half strength, *i.e.,* diluted with an equal quantity of water. Then as soon as development begins to be visible pour off the developer, dip the print in plain water for a second and then lay it flat down either on a sheet of glass or the bottom of a dish and just wait until the slowly growing image ceases to show any change. This may be a matter of some minutes. The underlying idea is that all parts of the gelatine film are equally charged

with a like quantity of the developer, and that when this is used up supply stops. It is presumed that each particle of silver bromide that has been sufficiently exposed to become part of the ultimate image requires the same quantity of developer to affect the change. Now these hungry particles are closer together in the shadows of the print than those in the lighter parts and would use up more developer if the paper was floating in a dish of developer from which they could get an unlimited supply.

Or we may compare the print to a crowd of adults and children among whom there fell a shower of buns so that each person got one only. The adults would gobble up the supply before the youngsters were half through, but given time each would get the same meal. This is the print laid out to develop slowly. If, however, there was a steadily falling shower of buns the big-mouthed adults would eat at a greater rate than the youngsters could and so would get the bigger meal in the same time. This is our print bathed in a full supply of developer.

In Figs. A and B we have two ordinary glossy bromide paper prints from the same negative, which had the same exposure, and same developer, which in this case happened to be amidol, this developer being used to show that it is not a special feature of a soft type developer.

Print A was developed in quite the usual way. In this case I carefully noted how long was the interval between pouring on the developer and the image first showing, viz., 25 seconds.

The second print B was submitted to the developer for 20 seconds, *i.e.*, a trifle short of the time of first appearance, but by the time it had been rinsed with water and laid out flat the image was just appearing.

Now the points to notice are that in A we get a long range of tone, from white sky to foreground dark rocks, here and there very nearly black. In the second print B, we get a shorter range from white sky in parts to dark gray rocks, but if the block maker follows the original exactly we can quite well see certain cloud forms in the sky. The worker will notice when using this process that the soft contrast B image has a yellowish tendency, but if the print be toned by any of the usual baths this is negligible.

In passing it may be of interest to say that this scene shows us the stream which a little further on comes tumbling down the fell side and makes the world-renowned Lodore Falls in the Lake Country. The little bridge is said to be, and apparently is, Roman work. Just at the other side of this bridge is Watendlath tarn. This spot is one of the least known but most beautiful and romantic bits of the lake country and easily reached by a five or six mile delightful walk from Keswick.

(8.) But to return to prosaic photography. We have, thanks to Mr. Sterry, yet another soft-contrast-from-hard-negatives process. Make a saturated solution of powdered potassium bichromate by taking say ½ an ounce of the salt and adding 4 ounces of warm water. Shake the mixture a few times and then let it stand to get clear. To prepare our bath we add



(Fig. C) *F. C. Lambert*



(Fig. D) *F. C. Lambert*

one drop, or minim, whichever you fancy in this case, per *one ounce* of water.

To get a soft print from a hard negative give what you estimate to be four times normal exposure for normal developer. Say, ½ minute at 4 feet from No. 5 gas burner, and develop your print. The result will be something after the style of print C, viz., heavy darks and gradationless highlights.

Now for the second print; *quadruple* the exposure, *i.e.,* 2 minutes at 4 feet or what is more convenient and better, give the same exposure at half normal distance, *i.e.,* ½ minute at 2 feet.

Now bathe this paper for *one* minute in the one drop potassium bichromate saturated solution per one ounce water. Wash the paper for one minute in plain water and then apply your normal developer and get the soft contrast effect of example D.

Here we must compare the gradation and delicate shadow detail in the higher lights—*e. g.,* the part of the fancy dress on the back of the figure.

In this case also we get an image of a yellowish tendency.

These means of bromide printing control by no means exhaust our quiver, but they may suffice until I can return to the subject on some subsequent occasion. It may be urged that the individual effects are small, but on the other hand taken together it will be found that their cumulative effect is by no means to be despised.

PRESS PHOTOGRAPHY

ITS HUMOR AND PATHOS.



THE above title is a most appropriate one for the story that is to follow, and perhaps the reader will be interested to know what the exact experiences of a press photographer are. Many articles have been written on the subject of newspaper illustrations, but it seems as if most of them had been written by those who knew least about it.

To follow the daily life of one engaged in furnishing pictures for an inquisitive public is to see a side of life perhaps never before dreamed of. There is humor, and plenty of it in press photography, but for all the amusement gained, there is a semi-tragic side of the life of one so engaged that sobers his enjoyment and dulls his perception of the humorous. Looking back over a number of years spent in newspaper work, there comes to my mind many incidents that are at once amusing and pitiful. For instance, at the time that Mrs. Longworth, then Miss Roosevelt, was in the height of her popularity and the magazines and papers were talking of little else, the writer was in Salem, Massachusetts, on a mural painting story with a reporter of one of the Boston papers. On the return trip an attractively dressed young lady boarded the



FLASHLIGHT OF THE DREAMLAND FIRE (Courtesy of the *Evening Telegram*)



CHINESE ROYALTY SALUTING THE AMERICAN FLAG (Courtesy of the *Evening Telegram*)

train at Lynn, accompanied by two elderly ladies and occupied seats a short distance ahead of the writer, where the face of the younger member of the party was visible during the remainder of the trip. It only took a glance to recognize her as Miss Roosevelt, and she was perfectly aware that the writer was a photographer, for in passing him she must have seen the camera. Now comes the joke. As scarce as good pictures of Miss Roosevelt were, and for all the great demand they were in, the writer only had a folding type of camera and a long focus lens with no shutter. Nothing but a lens cap, and a chance of a lifetime to get good pictures that were so in demand. On arriving at Boston, Miss Roosevelt and her party waited for a car, and the side glances told me that she was in a quandary to know why I should have a camera there and yet not use it. I didn't kick myself all the way back to the office, but I could have without flinching.

Those were the days of the large reflecting camera and the slow lens. It was some time later that the now popular style of very fast lens came on the market. As it was impossible to use this fast lens on the folding camera with a permanently-attached shutter, I used the before-the-lens type, and went out of town on a murder story without the latter, much to my chagrin and disgust. There wasn't another photographer within many miles of me, and when we reached the house where the murder was committeed, the party suspected came out and talked with the reporter, while I stood there unable to do anything. When I finally got the camera open and focused I tried to get a



AMBASSADOR REID, DUKE AND DUCHESS OF CONNAUGHT (Courtesy of the *Evening Telegram*)

time exposure of his profile without his seeing me, but the effort availed me nothing and became the cause of my getting all that the reporter could think of in the way of doubtful compliments, as the suspect ran into the house as soon as he caught sight of the open camera. This reformed me as far as that shutter went, and thereafter I used the reflecting type altogether. Circumstances have changed since then, however, and now when I go out on a story no camera is visible, to the astonishment of many.

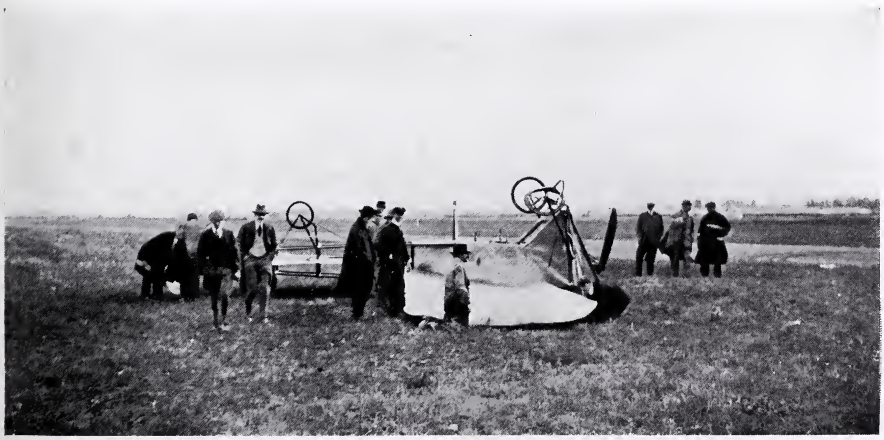
The work of the modern press photographer is so much in parallel with that of the secret service men that the instinct of man-hunting is very well developed. Herein lies the advantage of the invisible camera. It does not do to go out on some stories with a brass band announcing that you are a press photographer, in fact, the more the fact is concealed the more chances there are of getting the goods. Not so very long ago I went out of town on a story where the father of a handsome young lady had cause for feeling peevish over the circumstances, and little do I blame him, but his nerves were so upset that the slightest irritation was enough to make his actions rash, to say the least. I obtained pictures of the young lady and her gentleman friend without trouble, if posing and smiling is any criterion, but I had instructions to get the father and mother as well, and much to my dislike I went ahead with this point in view, for I knew perfectly well that they were respectable people in good circumstances, and not at all responsible for the rash acts of their daughter. I kept near the father until train time, stood within arm's length of him most of the time, and just as the train pulled into the station I pulled the camera out from under my coat and made the exposure with it against my



A LONG ISLAND VILLAGE (Courtesy of the *Evening Telegram*)

chin, for the light was poor. I wish I could publish that picture here. It shows the man with one hand in his overcoat pocket, ready to draw I know not what, and the expressions on his wife and the gentleman with them are a lesson in human nature. The shutter was a hair too quick to get the really interesting part of the action, for his wife grabbed one arm and his companion the other, while I was surrounded by gentlemen who insisted that I go to the far end of the train to let him cool down. We came back to New York on the same train, and he didn't pull whatever it was.

On one story I went completely up in the air. Once with Harry Atwood and the second time with Lieut. Milling, U. S. A. The first time was play,



WHAT HAPPENED TO MOISSANT (Courtesy of the *Evening Telegram*)

for no wind was blowing and the sensation was that of sailing over nothing with nothing ahead nor over. I had the camera along, but as the sun had long since gone to rest it might as well have been on the ground. The second time I took advantage of my previous experience and picked a bright sunny day, but the wind was blowing. We struck two air pockets, the first of which didn't amount to much, but the second made the Lieutenant look around at the machine and then he yelled into my ear, "I'll do that some day and keep on going, I won't stop." The remark is sufficient to describe the sensation, but I got the pictures just the same. With the kind permission of *The Evening Telegram* I am using one of them with this article. Never again when the wind is gusty.

We had a small fire down on Broadway a short time ago, and of all the water and ice—I thought I would freeze. My camera was coated with ice so thick that I had to set the scale at thirty feet and the shutter at a fiftieth and thaw out the lens between exposures by putting it into my mouth, shutter and all and wiping it off quick before the moisture could freeze on again. Yes, I got wet, and some cold.

To return to the pathetic side of the story, the press photographer meets circumstances that bring out human nature in its extreme. Only a short time ago the writer and a few other newspaper men were the sole mourners at the funeral of the victim of one of the most noted murder stories of the time. After the service the writer had to make photographs of the casket leaving the house and others at the cemetery. At this season of the year he is called upon to photograph the wives and children of destitute families, sometimes in a house so cold and bare that it would seem impossible for human life to exist. Many times the hand is thrust into the pocket and brought out laden with the wherewithal for coal and food for some slowly starving family left with no visible means of support.

There seems to be a wide gulf between the reportorial departments of some daily newspapers and the men hired to illustrate the stories written by its members. I have heard a reporter say to another on a cold and windy day that "His photographer" would watch the house, as he had to be there anyway in order to get the pictures, and notify the reporters when there was anything "doing." Some reporters make big money in New York, but I would like to tell some of them that the photographers exceed in this respect just how little they really are.

Enough for the unpleasant side of this life. Go back to the old Jefferson Market Court with me where I stood and cooled my heels while waiting for an elderly gentleman who had run into a little difficulty with the law. He finally drove up and, spying the camera before I could get a good view of him, began to tell me all the nice things he was going to do to me if I made his picture. I told him I couldn't strike a gray-haired man, so he had better not start anything. He walked on, still complimenting me and mine, but just as he entered the court he turned with his hand on the door knob for a parting word, when click, and I had a perfect portrait of him. I went away from there.

There are many applicants for positions on the great dailies, and most of them are with no experience in newspaper work. Were they experienced and good press photographers they wouldn't be looking for work. Some of their ideas of this line are so remarkably funny that an experienced man has hard work to keep his face straight when listening to their remarkable achievements. When a man wants to work for a New York newspaper and intends to use an 8 x 10 view camera, he isn't exactly experienced.

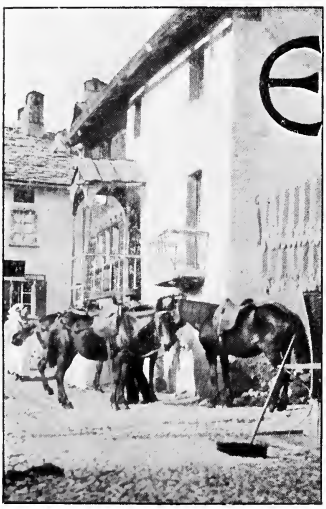
Let those who desire to enter the field of press photography read this little sketch and see if their enthusiasm is as deep as ever. I have written the above article not as an autobiography nor as a personal matter, but to give the reader some of the actual everyday experiences of the photographic illustrator on a modern newspaper. If the personal pronoun has entered too often it is because the story is of my own work, and it might also be the story of every other photographer engaged similarly. The story is not one of people, but one of a profession. It is the inside history of a situation little understood by the general public, maligned by them and classed with the undesirables of inquisition.



"*THE EQUITABLE FIRE*" (Courtesy of the *Evening Telegram*)

HOME-MADE MOUNTS FOR SINGLE LENSES AND PINHOLES

BY WILLIAM S. DAVIS.



EVERY landscape photographer knows the value of having lenses of several focal lengths in an outfit, but the amateur of limited means is not always prepared to dig up the coin necessary for their acquirement in commercial mounts. For such, the difficulty may be overcome by the outlay of a small sum for *unmounted* single achromatic lenses of the desired focus, and the use of a little mechanical skill in fixing a mount which will hold them interchangeably.

If the lenses are not all of the same diameter the first thing necessary is to build up the smaller ones by gumming strips of thick soft paper around their rims until they are of the same size as the largest one. Then make a lens-board A (Fig. 1), which will fit the camera and on the back of this fasten the block B, which should be about 1½ inches in thickness. Previous to fastening in place a hole must be made to a depth of ¼ inch and the same size as the lenses. Then a slightly smaller one is bored all the way through, to form a flange for the lenses to rest upon. Two small springs CC are next placed on back of block to keep the lenses in place.

Fig. 2 shows the arrangement of stops and exposing shutter on the face of lens-board. As the same size stops would not represent standard "f" numbers with lenses of different focus, the most convenient method is to make a sliding diaphragm plate (see Fig. 3), for each lens, zinc being a good material for the purpose as it is easy to work. As indicated, these slides are inserted in a slot, made by fastening strips of thin material on the front of lens-board and then placing a square of wood D over all. It is best to line the slot with velvet to make light-tight, and also prevent the diaphragm plate sliding too easily.

The shape of shutter E is shown clearly in Fig. 2. While not intended for "instantaneous" work, very quick time exposures can be given by pressing down handle F, and releasing same, quickly. For focusing, or long time exposures, F is pressed down until it comes in against pin G, which is placed in such a position that the shutter will balance open.

A color-screen or ray-filter may readily be used when desired by providing additional clips on the back of lens-block (these are not shown in drawing). The most convenient form of screen for this purpose is a square one somewhat larger than the circular opening in block B, as such a form can be kept in place by means of rabbeted cleats at top and bottom edges of block, between which the color-screen will slide.

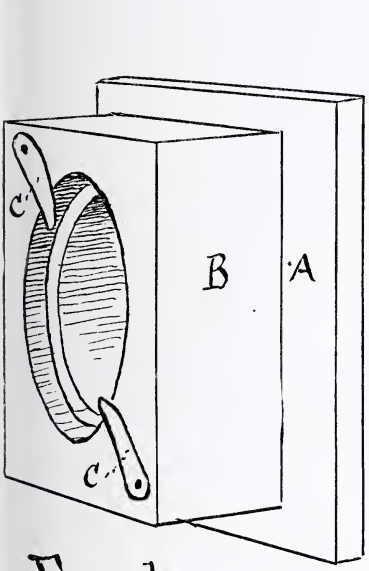


Fig. 1.

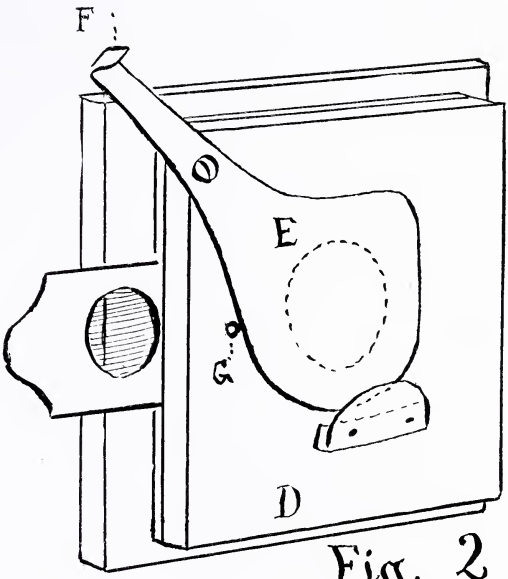
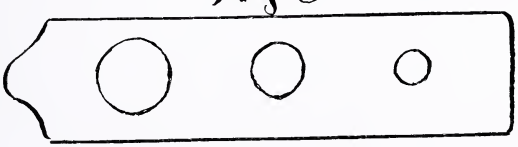


Fig. 2

Fig 3.



If the ordinary circular ray-filter is used, however, it is best retained in the desired position by fastening two wood blocks (having their inner sides hollowed to fit the rim of ray-filter), on the corners of B not already occupied by the lens clips. These blocks would of course be fitted with clips or buttons to hold the filter in the same way as the lens is fastened.

"A pinhole" attachment can easily be used with this style of mount by substituting a metal plate pierced with a needle of suitable size in place of the sliding diaphraghm shown in Fig. 3, and removing the lens.

Such an attachment is best made by first locating the spot on the plate where the opening should come, and then denting this place with a blunt-ended tool. The raised spot thus made on the under side is rubbed down with a file or emery until the metal is quite thin, when the "pinhole" is made by laying the plate on a block of wood and punching with a needle, such as number 8, taking care afterward to remove the burr caused by the needle with fine emery-paper, for the principal requirement is to have the edges of the hole both smooth and thin.

When several openings are desired the best sizes will be obtained by employing numbers 6, 8, and 10 needles. The smallest size (No. 10) named may be used at a short distance from the plate, either for small pictures or

wide angle work, while the larger openings are best when a larger image is desired by using a greater bellows extension, as exposure is governed the same as with lenses by the relation which the diameter of "pinhole" bears to the distance from sensitive plate at the time of making the exposure. If, for example, a number 8 opening is used at six inches from the plate it will require 60 times the exposure of a lens working at *f*32, or to put it in another way the "pinhole" exposure under these conditions would be as many *minutes* as the lens would need *seconds*, but should the position of the pinhole be altered this would no longer hold good, as at nine inches from plate the exposure would be 60 times that of *f*45 (*i.e.*, twice as much), and so on according to the distance from the plate.

NOTE.—In regard to the purchase of unmounted single achromatic lenses, these can be obtained direct from almost any manufacutring optician at about one-third to one-fourth the cost of mounted ones.

NOW IS THE TIME TO GET BUSY

BY HARRY A. BRODINE.



AT THIS time of the year, when it is but a short time before nature returns to life and everything is in bloom, it is fitting that a few words be said on landscape photography. Many amateurs shelve their cameras during the winter and in the meantime become rusty on their photographic knowledge. It is just these same would-be pictorialists who bewail their non-success in the photographic competitions, when really it is their own fault on account of their lack of sticktoitiveness. It is just as easy to make good pictures in winter as in summer, but photographers of the cold feet variety want things to suit them from apparatus to weather conditions. As the winter is soon over and their favorite brand of weather soon here I would suggest that they now get busy and clean up their photographic apparatus. After cleaning up, load the holders with ortho plates and have a ray filter handy, especially for cloud effects. Good results may be had without a ray filter, but I would advise a three-times filter for use in connection with the orthochromatic plates. I made a fine batch of negatives, using the Cramer Medium Iso plates on a trip last spring. These I developed with Rodinal, 1 ounce; water, 25 ounces. When developing, the plates should be carried a trifle further than with other developers, as they seem to lose more density in the fixing bath, more so than with other developers.

A nice time of year to make pictures is early in May when the trees are not as yet in full bloom. One does not get so many pictures in which there



TREES IN BLOSSOM — *Harry A. Brodine*



A MOUNTAIN ROAD — *Harry A. Brodine*

is a mass of meaningless detail as occurs quite frequently in the summer time. Try to secure simple compositions as they are more pleasing than when one tries to photograph a panorama of a dozen square miles on a 5 x 7 plate. Such work cannot be artistic because there is at the same time too much and too little to look at.

It is very easy to write and give suggestions, but unless the amateur will put them into practice they will avail him nothing. A careful study of the pictures accompanying this article will be more beneficial than a book full of text. These pictures are not put forward as being works of art, but rather as showing what is possible for any photographer to do if he is careful and studies his subject before making the exposure.



SUNLIGHT AND SHADOW *H. A. Brodine*

Editorial Notes



OUR cover illustration this month is entitled, "A Hillside Brook," and is from a negative by our talented contributor, Mr. Floyd Vail. In this number we also print a handsome, full-page picture from one of Mr. Vail's negatives, entitled, "A Misty Morning."

THAT the sky in the majority of landscape photographs is the least satisfactory part will not be denied by any person who has received the elements of an artistic training. This point is emphasized of late by the fact that the bromoil process is more often than not taken up by persons with scant equipment in the direction of acute observation, either of nature or of good art work in other media. Indeed, it is already almost a commonplace that the sandpaper sky with volcanic eruption clouds is inevitable in this process. It is therefore not untimely to revert to the fundamental fact that the sky usually serves the office of a background in most landscape work. Now the essential nature of a background is that it keeps back—does not force itself on our attention either by undue complexity of form or emphatic contrasts.

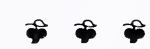
THE raw beginner may be excused if his skies are little more than blank white paper. But a brief experience shows that such a blank white background does not keep back. On the contrary, it very often is the first feature to attract attention. By force of contrast, it tends to degrade the lighter tones of the picture and also to make the darker parts look darker, more solid and opaque than would be the case if a suitable sky were shown. The blank-paper sky period is usually followed by an extreme swing of the pendulum in the opposite direction—viz., the printing in of a "noisy" sky with clouds. Not only is this part far too complicated and full, but very frequently the printing is over-done. So that not seldom we have a gloomy, storm-threatening sky with a well-lit and perhaps sunny landscape.

THIS point leads us to a third essential but often overlooked matter, viz., the relationship of sky part and landscape part, both in sentiment and chiaroscuro. A moment's thought will show us that the lighting of a landscape is derived from the light of the sky, including sun, clouds, atmos-



A MISTY MORNING — *Floyd Vail*

phere, etc. It is therefore an absurd incongruity to have a sunlit shadow-casting foreground with a sun-obscured sky—or a well-lit landscape with a dark, gloomy sky. And were such glaring inconsistencies not so common one would hesitate to refer to the subject. Again, with regard to the general character or sentiment of the scene. There seems an unfitness of things when we have a quiet, peaceful landscape and a storm-laden sky—or, *vice versa,* a rocky coast and pounding vast waves with a calm and peaceful sunset. The sky should not be merely "a" background, but just "the" right kind of background.



FROM a pictorial point of view the chief fault in landscape photography is nearly always in connection with the sky part of the picture. Dismissing at once the obvious error of a blank paper sky, we come to the next common fault of the over-printed or over-contrasted sky, with stagey or falsely sensational cloud effects. The point which not only the beginner, but also many old hands miss, is this: In an ordinary landscape on a fine, but not necessarily brilliant, day, when clouds of a normal character are present, we get a very considerable range of light and shade, extending from, let us say, the darker side of a foreground tree-trunk to the lightest part of a cumulus cloud, or well-lit white-washed cottage. Without much exaggeration we may assume that the highest light sent to our eye in such a case is a hundred times as much light as the darkest shadow of the subject. If, now, we compare the quantity of light reflected by the whitest and blackest parts of a platinum print the ratio will be something like thirty to one. In other words, the range of light and shade available on paper is about one-third as long as that of the imaginary object before us. Clearly, some sort of compromise will have to be made. Suppose we take the obvious course and pay out proportionally all the way along the scale. Then one step of the print will have to serve for three steps in Nature—or the finer differences have to be averaged. This, of course, is not the only compromise by any means, but it will serve for the moment—and in general it is of wider application than any other system, although for special effects there are various other plans of compromising satisfactorily.



PERHAPS the most remarkable property of the modern dry plate is that which is least seldom thought of at all—viz., its power of accumulating light impressions of too feeble degree to be visible to the eye until sufficient effect has rolled up, as it were, to afford a developable image. The microscope gives us an additional eye for the infinitely little, the telescope extends our vision into infinite distance, the dry plate enables us to see the infinitely feeble light, using the term infinite in its general, but not strictly mathematical, sense. This is one of the properties which has rendered it of such signal service to the astronomer. Another quality is that, unlike the human eye, can only look at one thing at a time, it can use its million eyes to look at a million different things at the same moment.

Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

CONTRASTY PRINTING-OUT PAPER.

In Europe, where printing-out papers are used to a greater extent than in this country, manufacturers have endeavored for several years to make a hard printing paper for flat negatives. Usually chromates or ferricyanides are used for this purpose. The objection to the latter salts is that the emulsion is colored, making it more difficult to judge the proper length of time to print for the required results. According to the *Photo-Revue,* 1911, vanadium and phosphorus-vanadium salts do not possess the above objections, as the emulsion remains white.

English.		Metric.
46 ozs.	Water	1400 c.c.
5 ozs.	Gelatin	150.0 gms.
	Solution 1.	
5 ozs.	Water	150 c.c.
1 oz., 75 grains	Citric acid	35.0 gms.
30 grains	Ammonium vanadinate	2.0 gms.
	Solution 2.	
1⅔ ozs.	Water	50 c.c.
2 drams	Ammonium chloride	8.0 gms.
	Solution 3.	
6⅔ozs.	Distilled water	200 c.c.
1 oz., 5 drams	Silver nitrate	50.0 gms.

The ammonium vanadinate may be replaced by 2-3 gms. (30-45 grains) of ammonio-vanadium phosphide.

To the gelatine solution is added slowly and with constant stirring, the other solutions in the order given.

—*Photographische Industrie,* No. 1, 1912.

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THE DISAPPEARANCE OF THE LATENT IMAGE FROM BROMIDE PAPER.

Dr. Marc recently returned from a trip to the Island of Patmos, where he had made over 5,000 exposures from books and manuscripts. A certain number were developed every day as a test to see if the exposures were correct. These invariably gave good results. Because it was not possible to develop all the exposures, the development was postponed until the return from the trip. On getting home the unpleasant discovery was made that little or no image could be developed. The latent image had in a short time "gone back" giving rise to an appearance as if the exposure had been very much too short. This peculiar action has been repeatedly noticed. It has occurred that motion picture films correctly exposed according to test development, and then sent across the ocean could not be used because, on development after their arrival, there was an apparent "under-exposure." All this in the course of only one week. Scientists, amateurs and others who make valuable exposures should heed the above and develop their exposures as soon as possible.—*Apollo,* Vol. 18, No. 400.

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COATING FOR PROJECTION SCREENS.

The great development and widespread use of motion pictures has induced many experimenters to try to improve the old white sheet so familiar to lantern slide exhibitors. One great objection to the white sheet was that too much light passed through, thereby lessening the brilliancy of the pictures; that is one reason why a white wall was better. An improvement, according to *Lux,* page 247, 1911, is to paint the following mixture on suitable cloth.

English.		Metric.
15 ozs.	Warm water	450 c.c.
12½ ozs.	Glycerine	375.0 gms.
12½ ozs.	White glue	375.0 gms.
25 ozs.	French zinc white	750.0 gms.

The solution is applied warm to the cloth which should rest on a soft support during the coating and drying. The above quantity is sufficient for about four square meters (a little over four square yards). When the screen is not in use it is best to keep it rolled up.

—*Photographische Industrie,* No. 22, 1911.

Among the Camera Clubs

[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—THE EDITORS.]

The M. A. A. A. Camera Club held its Sixth Annual Exhibition at the Club House of the Montreal Amateur Athletic Association, 250 Peel street, Montreal, April 8th to 13th, inclusive.

There were 196 entries hung, which compare favorably with those of previous years. The Division of the Open Classes into (A) Figure Studies; (B) Landscapes; (C) Waterscapes; and (D) Genre permitted the Jury of Award to recognize meritorious work which could not compete on equal terms, on account of the divergence of subjects. The prizes offered were silver and bronze plaques for first and second in Classes A and B, and bronze plaques for the others. Those winning in the Open Classes are A. First, "The Skylark," by Jos. M. Rogers, Chicago Camera Club; Second, "Portrait of Mr. M.," by B. F. Langland, Wisconsin Camera Club; B. First, "Pleasant Pastures," by W. R. Allen, M. A. A. A. Camera Club; Second, "Evening on the Lake," by B. F. Langland, Wisconsin Camera Club; C. "On Jersey Shores," by Dr. A. R. Benedict, Montclair, N. J.; D. "Old Wood to Burn," by W. S. Fife, Toronto Camera Club. Certificates of Honorable Mention were awarded "The Man on the Box," by A. R. Benedict; "Does my Mother Want Me? Yes. No," by Charles A. Coles, Toronto Camera Club; "The Kite Maker," by W. S. Fife; "The Spreading Willow," by R. S. Kaufman, Wilkes-Barre Camera Club; "High Noon," by H. Mackie, Toronto Camera Club; "Winter Evening on the Red River," by E. Ratibor, Winnipeg Camera Club; "In the Pasture Lot," by H. C. Shepherd, Wilkes-Barre Camera Club. In the Club Class the winners are First, "The Forest Pool," by W. R. Allen, and Second "Wilmot," by B. B. Pinkerton.

The Eighth American Salon will hang as follows, completing its itinerary.

John Heiron Art Institute, Indianapolis, Ind., March 24—April 10. Toledo Museum of Art, Toledo, O., April 15—May 3. Chicago Art Institute, Chicago, Ill., May 7—31. Art Institute, Kansas City, Mo., June 3—28.

Then the Salon will be returned to Toledo and closed.

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ILLINOIS COLLEGE OF PHOTOGRAPHY, EFFINGHAM, ILL.

Mr. Frank R. Fraprie, editor of the *American Photography*, of Boston, made a special visit to the college on April 5th and spent the day with us. Brother Fraprie knows the editing business from A to Z, and many other things, and we look forward to his next visit with a great deal of pleasure.

Mr. C. W. Dishinger, student of 1910, called on us last month with three enormous frames covered with the pictures of about 250 members of the Mississippi legislature. The sets were to be copied on 20 x 24 negatives, and Mr. Dishinger came about 500 miles to use the college outfit for the work. We also received very pleasant visits last month from Mr. Max Freudenburg, student of 1906. Mr. A. F. Wilson, of 1910, and Miss Rose Hayes, of 1911.

Mr. L. H. Bissell was elected president of the National Good Roads Association of Illinois last month at the Convention held in Effingham. The purpose of this organization is to establish a system of modern hard roads from coast to coast, and the Convention at Effingham covered the Illinois section of the work.

The College Camera Club contest prizes

were won last month by Mr. Hartwick, Mr. Reed, Miss Rhodes, and Mr. Reis.

Mr. Garo Kawano, who recently finished a course in photography, is engaged in home protraiture work at Lockport, N. Y., and reports business fine.

Several foreign students have enrolled during the past month, as follows: H. T. Manabe, Japan; R. S. Noda, Japan; Nagendranath Ghose, India; F. Kunishige, Japan.

Mr. Fred Locke who has been working the past winter in Philadelphia at newspaper engraving, has returned to finish his course in engraving at the college.

Miss Virginia Forwood who has been absent the past winter has resumed her work in the photographic course.

Mr. Taylor, of the Bausch & Lomb Optical Co., gave a very interesting lecture to the students on the lens question last week, and on his next visit he will bring a number of lantern slides and diagrams illustrating his talk.

A number of the students attended the Eastman School of Photography which was held at St. Louis several days last month.

Mr. Anton Zmuda has finished the photographic course and returned to his home city, Harvey, Ill., where he will engage in home portrait work.

☆ ☆ ☆

The Twentieth Annual Banquet of the New Britain Camera Club was held at the club rooms, 173 Main street, on the evening of Tuesday, March 12, 1912, and was the usual jolly affair. The table was very prettily decorated with flowers and electric lights, and there were plenty of good things to eat. President Edwin H. Start was toastmaster, and after the fumigators were going in good shape, he made a little speech in somewhat humorous vein, briefly outlining the history of the club, incidentally giving some of the members a good "knocking," and setting forth the objects of the club and its prospects for the future. There were responses from many of the older members, and from some of the newer ones. The real "exposures" of the evening came when ex-president Lewis turned on the lantern and put upon the screen some lantern slides made from pen sketches bringing out the features and characteristics,—especially the characteristics,—of the members present. The secretary gave a little talk upon club rooms in general, and showed upon the screen pictures of the quarters of other clubs, the slides for which were loaned for the occasion by some of the lantern slide directors of the clubs connected with the Interchange. Mr. Rossberg, who, besides making pictures, deals in phonographs, furnished "canned" music during the evening with the Victrola. The party broke up at a late hour, voting it the best ever. The committee in charge were Mr. Dillon, Mr. Vance, Mr. Hurd, and Mr. Bishop. The annual meeting of the club was held on Tuesday evening March 26, and the first election under the new by-laws was held, the Board of Control elected being as follows:

For three years.—John A. Lewis, E. A. Sheldon, F. G. Patience.

For two years.—E. H. Start, H. G. Voight, A. W. Stipek.

For one year.—W. B. Rossberg, Johnstone Vance, W. R. Stone.

The Committee on Annual Outing reported arrangements for a trip on Fast-day through the reservation of the Hartford Water Works, continuing on over Talcott Mountain to Weatogue and thence home by rail. If the weather was unfavorable, the trip would be made by special trolley, and dinner served at a Unionville hotel.



Photographic Reviews

WHAT ONE READER THINKS OF "PHOTOGRAPHY."

We have just received the following letter which explains itself:

The Photographic Times Publishing Ass'n.,
135 West 14th St.,
New York.

GENTLEMEN:

I have just secured on order through the Obrig Camera Co., a copy of *Photography,* and I desire to compliment you upon the publication of such a fine work.

Looking on the subject of photography purely from the standpoint of an amateur, it covers just what I have long been looking for, and in up-to-date completeness it is way ahead of anything I have yet seen.

With best wishes for your success with this book,

Yours very truly,
JAMES A. MOUNTAIN, JR.

❖ ❖ ❖

Country Life in America, for April, contains a very interesting illustrated article by our contemporary, Mr. Wilfred A. French, Editor of *Photo-Era.* The illustrations are by Gertrude Kasebier, W. B. Post, William Notman, and George Grant Bain.

❖ ❖ ❖

The Philistine, for April, 1912, contains a characteristic "Little Journey," by Elbert Hubbard, "to the home of the Ansco."

"The next week I had an engagement in New York City," he writes, "and instead of going straight through, I took a train from Buffalo to Binghamton, arriving in the morning.

"My intent was to make a little journey to the home of the Ansco camera and see the place where the Ansco films were made and the Cyko paper manufactured.

"I intended to spend about an hour in Binghamton. But I lost my train, and instead of an hour, spent the entire day looking through the various buildings where the art of photography has been simplified and perfected.

"Of course, there is no such thing as perfection; and I found that the Ansco folks were filled with a noble discontent and seemed quite unaware that they had purformed any special miracles, so intent were they on doing bigger and better things.

"As you approach the city of Binghamton, there is one smokestack that looms higher than any of the rest. It is built of yellow brick, inlaid with black tile, with the word Ansco standing out so it can be read a mile.

"To this smokestack I wended my way. It may be true that if a man write a better book, preach a better sermon, invent a better mousetrap than his neighbor, the world will make a path to his door, but he must advertise and let the world know what he is doing. Otherwise, he may pine away in silence and solitude. But the world is surely making a pathway to the home of the Ansco.

"The word "Ansco" comes from the words Anthony and Scovill, the oldest jobbers and manufacturers of cameras and photographic supplies in the world. The Scovill and Adams Company and the E. & H. T. Anthony Company are the parent houses from which the photographic business in America sprang."

❖ ❖ ❖

The First Book of Photography," by C. H. Claudy. New York, McBride, Nast & Co.

If you want to know how to get six good pictures from a six film spool every time, you should read this boiled-down, concise description of the whole thing—a book that assumes no photographic knowledge on your part, but tells you concisely

just how to make good pictures. The author is so well known to the readers of THE PHOTOGRAPHIC TIMES, that his name alone will carry conviction to them. The price, in neat cloth covers, is 75 cents, postage 8 cents extra. The publishers of THE PHOTOGRAPHIC TIMES will be glad to supply our readers with copies of the book on receipt of the price.

❖ ❖ ❖

The current issue (March) of *Knowledge* contains a considerable number of items of interest for photographers, *e. g.*, a note on the new element, Canadium, which has the same melting-point as silver, viz., 964 degrees Cent., but is not precipitated by alkaline chlorides, *vide* p. 1099). On the same page are recorded some very curious photographic effects of chemical reactions. Thus to the bottom of a beaker was fixed a star of tinfoil, which was then placed on a sensitive plate in the dark. Strips of various metals, zinc, copper, lead, etc., were put into the beaker, which contained sulphuric, hydrochloric, or nitric acid. In the case of lead and nitric acid it took four days for the chemical reaction to set up enough light waves to give an image. But, of course, the point of interest is that such chemical reactions are accompanied by forces which give a developable image at all.

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"Three Wonderlands of the American West," by Thomas D. Murphy. L. C. Page & Co., Boston, publishers. Price, $3.00.

The Yellowstone, The Yosemite, and The Grand Canyon, the three wonderlands of our great west, are vividly portrayed in reproductions in color, from sixteen original oil paintings of Thos. Moran, N. A., and thirty-two duogravures from actual photographs, in this most excellent book. The description of the subjects is by a true lover of the beautiful in the handiwork of nature. The grandeur of the scenes can only be realized by a visit to the same, but after reading the book and seeing the pictures we can almost imagine ourselves drinking in with our eyes, the wonders displayed before us. Mr. Murphy has traveled much and written describing very fully his previous trips, but to our mind, this book carries us out of our own little sphere and places us in an entirely different world, where all is beautiful in its grandeur.

Our illustration is from one of the duogravures. "The Cemetery Garden, Santa Barbara Mission, California, and gives an idea of the peaceful simplicity enjoyed by the Monks.

Altogether we consider this a most worthy books. To those contemplating a sojourn we would suggest procuring this book and enjoying beforehand a view of this fairyland, which can no doubt be better appreciated in reality.

❖ ❖ ❖

The April number of *Photographic Scraps* contains a useful note about toning bromide prints, wherein it is pointed out that using a bleaching solution too warm may result in fatal loss of detail. The presence of iron in the body of the paper, either as minute particles of iron-rust from the tap water or otherwise, is likely to result in objectionable blue spots after the use of sodium sulphide, but this is less likely with the use of ammonium sulphide. Another suggested prevention of these iron blue spots is the addition of a few drops of liquid ammonia to the bleaching bath (ferricyanide and bromide). Another valuable article deals with toning lantern slides, and gives several formulæ for red, brown, blue, and green colors. The number concludes with an article on tentative development of bromide prints, using a soft contrast, quick-acting metol developer, and a strong contrast quinol developer, either conjointly or singly.

Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

DR. MEES AT KODAK PARK.

The following note is reprinted from the *Trade Circular,* for March:

It is our policy to provide whatever may be necessary to the maintenance of our leadership in the manufacture of goods for every important phase of the photographic industry. This means not merely the purchase of a business or of formulæ, but means what is often more important, the association with ourselves of the man or men who have built up that business. In line with this policy, we have purchased the business of Wratten & Wainwright, Ltd., of Croydon, England.

Wratten & Wainwright, Ltd., have long held the premier position amongst European manufacturers of color sensitive plates and other products dealing with orthochromatic and color separation problems. Their success in this particular field has been due largely to the work of Dr. C. E. Kenneth Mees, who will soon become a part of our scientific staff at Kodak Park, making this same line of work that he has pursued so successfully in England, his specialty.

For many years Dr. Mees has been one of the foremost investigators of color sensitive problems and has contributed much to the literature on the subject; his works include "The Photography of Colored Objects," "Orthochromatic Filters," and an "Atlas of Absorption Spectra," and many articles along these lines in the European photographic journals.

The special products of Wratten and Wainwright, Ltd., include the Allochrome, a plate remarkably sensitive to green and yellow, and the Panchromatic plate, sensitive to the whole spectrum, including deep red. Special light and tri-color filters and darkroom safe lights are also manufactured.

A special laboratory building is to be erected at Kodak Park where Dr. Mees will continue his research work and also complete the plans for the manufacture of the Wratten and Wainwright products in this country. Meanwhile the Wratten and Wainwright products will be imported and will prove of extraordinary value to all those requiring plates and filters for orthochromatic and trichromatic work.

* * *

Mr. L. H. Bissell, President of the Illinois College of Photography, was elected president of The National Road Association of Illinois, at a large meeting of that body. The association has applied to Congress for the Panama Canal machinery to build a National highway across the state, for as soon as the canal is completed the machinery will be of no further use to the government.

* * *

Another addition to the sales force of the Defender Photo Supply Co., is Mr. Jas. B. Cummings. Mr. Cummings, though still a young man, is a veteran in the photographic line. Starting in with the old Scovill and Adams Co., he later went with the Nepera Paper Co. and after many years with them, he retired to the pursuits of a country farmer. We welcome our old friend back and feel sure his former friends and acquaintances will be glad to know that "Jim" Cummings is in harness again.

* * *

A COURSE IN OUTDOOR PHOTOGRAPHY.

Under the auspices of the Department of Photography of the Brooklyn Institute of Arts and Sciences, Mr. William H. Zerbe will conduct a course in outdoor photography beginning on Sunday, April 28th, and continuing on Sundays during May and June, with meetings in the Studio of the Department of Photography on alternate Tuesday evenings, beginning April 30th.

Unlike the course which Mr. Zerbe conducted in the studio during the winter, for which no previous technical knowledge was necessary, those who take this course are expected to know how to develop plates and to make prints, and to have a knowledge of the chemical and technical parts. The object of this course is to help the photographer in the selection and composition of subjects and the treatment of the negative to gain the best results pictorially. Many a photographer knows how to develop and print, but is not sure of what he wants to do when in the field and has had no association with other photographers. To such workers Mr. Zerbe will be a great aid.

During the ten field meetings various places will be visited where river scenes, landscapes, seascapes, and architectural work may be pictured. One Sunday will probably be spent at Long Beach where sand dunes will be studied and another will be devoted to street scenes for the hand camera. The placing of figures in landscapes will also be taken up.

The five meetings in the studio will be devoted to criticism of the work done during the field meetings, with suggestions for improvement in printing and composition.

Each person should have either a view camera with tripod or a hand camera and will be expected to pay his or her expenses for the day—plates, railroad fares, and lunches, if the outing is for all day.

The first meeting, which will not be included in the course, will be at eight o'clock on Tuesday evening, April 23rd, in the studio, Academy of Music Building, Lafayette avenue, Brooklyn, N. Y., and will be for organization purposes. Mr. Zerbe will then explain his plans for the course in detail and will announce the dates and places to be visited. A short talk on composition will follow at this meeting. Further information may be obtained by communicating with William H. Zerbe, 345 Spruce street, Richmond Hill, N. Y., or with Richard M. Coit, 56 Pine street, New York City.

* * *

BONUS FOR THE EASTMAN EMPLOYEES.

At the annual meeting of the Eastman Kodak Company, held yesterday afternoon in the New Jersey Title Guarantee and Trust Company Building, at 83 Montgomery street, a resolution was adopted authorizing the Board of Directors to distribute among the wage-earning and salaried employees of the company and any subsidiary firms a sum not to exceed $500,000. Six thousand employees at the Rochester factory will enjoy the benefits of the bonus, a brand new feature in the corporation's management.

The Board of Directors may use its discretion in making the distribution. The sum will be taken from the surplus income of the company.

Another venture was the adoption of a resolution directing the Board of Directors to set aside a sum not to exceed $500,000 to be added to the Employees' Benefit, Accident and Pension Fund. The investment, management and expenditure will be under the direction and control of the Board of Directors, or a committee to be appointed by the board, with the powers in the directors to terminate the arrangement and turn over the entire remaining fund to the company.

Henry A. Strong, James S. Watson, and Frank S. Noble were elected to the Board of Directors for a term of three years. They will succeed themselves.

One hundred and ninety-six thousand four hundred and eighty shares of stock were voted at the meeting, either by proxy or in person. Of this number 196,000 were voted in proxy through William H. Corbin, J. Craig Powers, and Clarence E. Snow. There are 257,519 shares of outstanding stock, the company being capitalized at $25,000,000.

The annual report shows that the year 1911 was a banner one for the Eastman Kodak Company. The net earnings amounted to more than $11,000,000, an increase of nearly $3,000,000 over 1910.

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CHANGE OF ADDRESS.—When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent one week before the change is to take effect.

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HOW TO REMIT.—Remittances should be sent by Draft on New York, Express Order, or Money Order, payable to order of *The Photographic Times Publishing Association*. Cash should be sent in registered letter.

CONTRIBUTIONS.—All literary contributions, correspondence, "Queries," etc., should be addressed to *The Editor;* all advertising matter to the Advertising Manager.

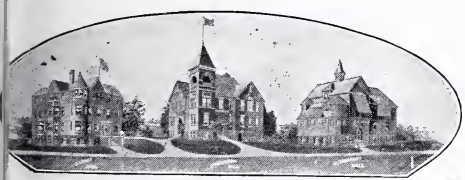
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Advertisements for insertion under this heading will be charged for at the rate of 25c a line, about eight words to the line. Cash must accompany copy in all cases. Copy for advertisements must be received at office one week in advance of the day of publication, which is the first of each month. Advertisers receive a copy of the journal free to certify the correctness of the insertion.

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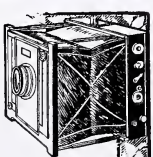
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ROCHESTER, N. Y., *The Kodak City.*

YOUR VACATION.

I had really imagined I was getting all the pleasure there was to be had with a Kodak until I ran across an enthusiast the other evening and, as enthusiasm is contagious, I was soon aware of all the pleasure I had missed and had resolved to make the best of Kodak simplicity the coming year.

We had spent our vacation at the same place but not at the same time, and when I saw the pictures he had brought home, I was heartily ashamed of the little I had done to perpetuate that camping trip of mine.

It was not only the pictures he brought back with him, but the pleasure he had during a good part of the winter, making up the beautiful album which was to perpetuate the vacation and give so much pleasure after the vacation had become but a memory; but what a pleasant memory it was with his pictures to recall all the jolly times of that two weeks of real camp life.

The first thing that really impressed me about this wonderful album was the variety of tones, each as it seemed, being ideal for the particular scene. The camp was situated among some of the grandest trees I had ever seen, and these views of the forest were in a shade of green that made the picture as beautiful as the view itself had been. I had heard of Kodak Velvet Green paper but had never tried it—had never realized how much more realistic the picture could be made by printing it in one of nature's most pleasing tones, and that too, by the same simple process I had used in my Velox printing.

Some of the prints were in rich brown tones and had been made on Royal Velox and re-developed, some were on the same creamy tinted paper but had not been turned brown, but each print seemed specially suited to the particular subject, and all were beautiful.

I wondered how it could be that my friend seemed to have all the pictures I had missed, and found there was a very good reason. He had taken a Kodak Film Tank with him, and while he missed some exposures, the same as I had done, he had developed his films in camp and made good all his failures. He had the pictures I didn't have and that was sufficient argument for the Film Tank. I will have one on my vacation this summer and I will bring home pictures instead of excuses.

It seemed the further I looked in that album, the more I realized my deficiencies, and determined to make up for them this summer. I had never used a Portrait Attachment, and the pictures of individual members of the party made by its use were of unusual interest to me. Aside from the portraits, however, were some very fine still life studies, one in particular showing an exceptionally fine basket of fish my friend had caught. The enlargement from this negative is one of the most attractive decorations of his den and would fill any true sportsman's heart with pride.

There were many other small bits of nature that would be lost in the ordinary picture, but the little Portrait Attachment had singled them out and each had become a picture of interest. If you ever make a picture record of camp life, take my advice and Kodak the wild flowers, for there is nothing which adds so much to the beauty of an album as these decorative little flower studies.

Many of the most interesting pictures in this album were small enlargements made with a Brownie Enlarging Camera, and some of them seemed to be even better than the contact prints. The advantage of the enlargement was most plainly seen in the group pictures, the faces being large enough to get a much better idea of the expressions of joy and satisfaction which came over every

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

camper's face when he sits down to an ample mess of freshly caught fish.

The last picture in this wonderful album showed the camp fire with the entire party seated about for the evening stories, and it had been made by burning a Flash Sheet in the fire, with one of the party obstructing any light which might shine directly into the lens. The picture was effective; it was a typical picture of the finish of every day's camp life and it made me feel that I had been cheated out of half the pleasure of my vacation, but I am going to make up for it this summer. In fact I am in training now.

IMPORTANCE OF TEMPERATURE IN COLD OR WARM WEATHER.

It took me a long time to learn the importance of temperature as applied to developing solutions and cost me a lot in spoiled and unsatisfactory prints, but I have mastered the secret at last. I can't say it is a secret either for the instruction books have had enough to say about time and temperature. It was rather a case of too much confidence in my own ability and not enough attention to the advice of those same instruction books.

I was right to begin with, having always made up the Velox developer at a temperature of 70, but not taking into consideration the temperature of the room where I was working, I found the prints developing slower and slower, and kept increasing the time, thinking all the while that there must be something wrong with the printing light. Finally I made up a new solution of developer, fearing the old one had been overworked, and the first print developed in the new solution showed bad overtiming. This brought me to my senses and a realization of the importance of temperature.

Beginning at 70, the temperature had slowly dropped to about 60, and as the developer became colder, development was so much slower that I had been led to believe the prints had not had enough exposure. The increased exposure and slow development in a cold solution had given very unsatisfactory prints both as to color and contrast. In making up the new solution at a temperature of 70, the overtimed prints came up so quickly that it was plain to see that development had simply been retarded by a cold solution.

I now keep one of the stirring rod thermometers in my developing tray, which sets in a larger tray containing a small amount of warm water in cold weather, or ice water in hot weather. Two small strips of wood across one end of the larger tray permit me to set the tray of developer out of the warm or cold water when the temperature goes over or under 70, and so I am able to keep my developer at an even temperature summer or winter. My prints are now uniform and I have no trouble in duplicating any results I may have obtained.

My timer has also had much to do with the success of my Velox printing, as by its use I have been able to time more uniformly and with less trouble than when using my watch. The dial is so large on the Eastman Timer that when hung on the wall several feet from where I am working, I can see at a glance the markings of seconds and half seconds and rarely make a mistake. It is a convenience one would not try to get along without, after having used it once.

Be sure of the temperature and time and Velox printing is a very simple and satisfactory process. The most of mistakes are due to uncertainty in these two things, and the uncertainty may be readily overcome by observing the cautions above.

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The illustration above was made at a distance of four feet, with a 3A Kodak and Portrait Attachment, allowing opportunity for a bit of composition which is very pleasing and somewhat different from the ordinary idea of portraits.



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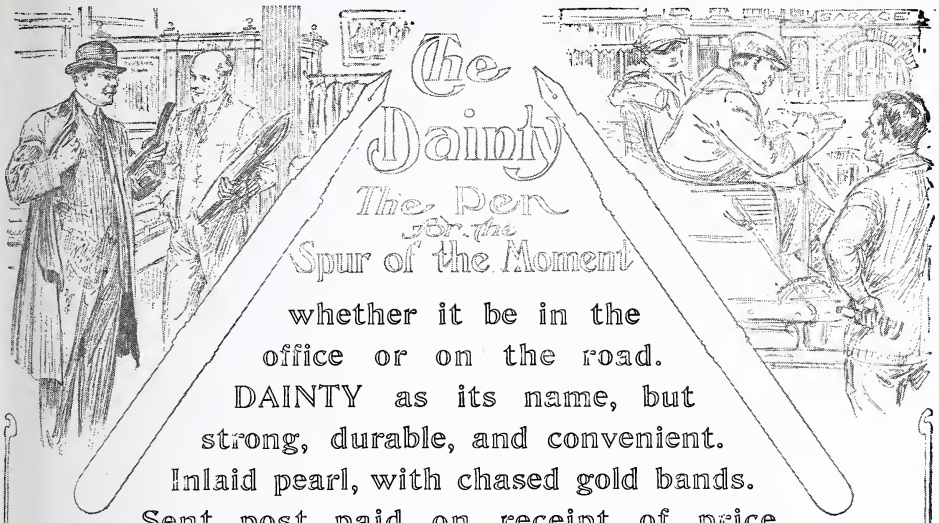
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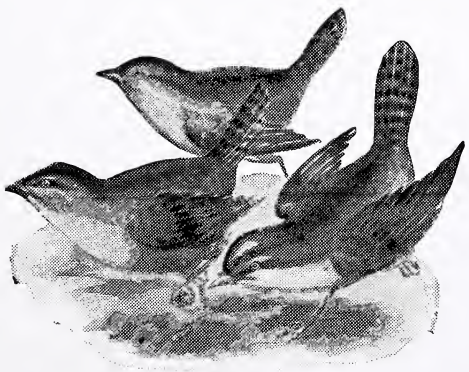
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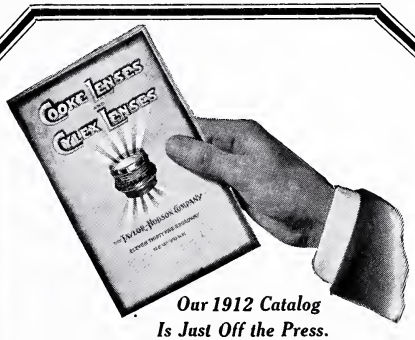
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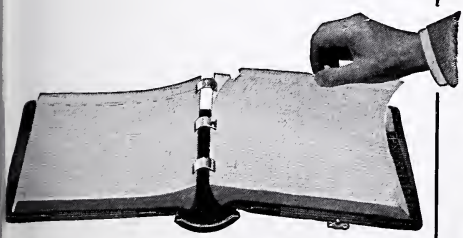
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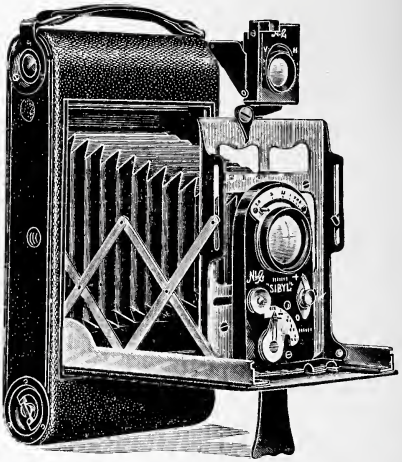
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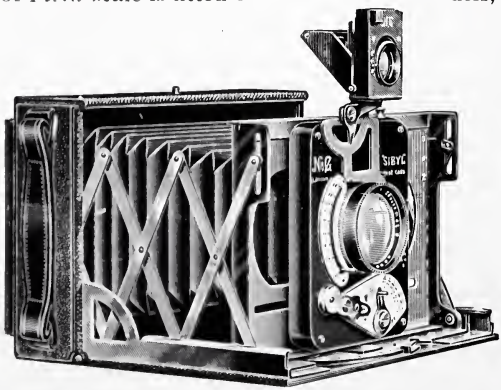


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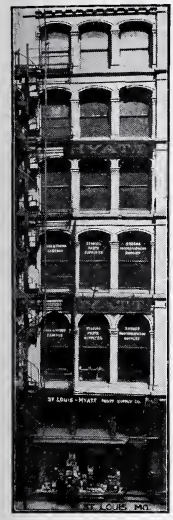
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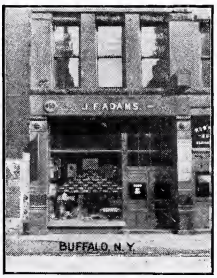
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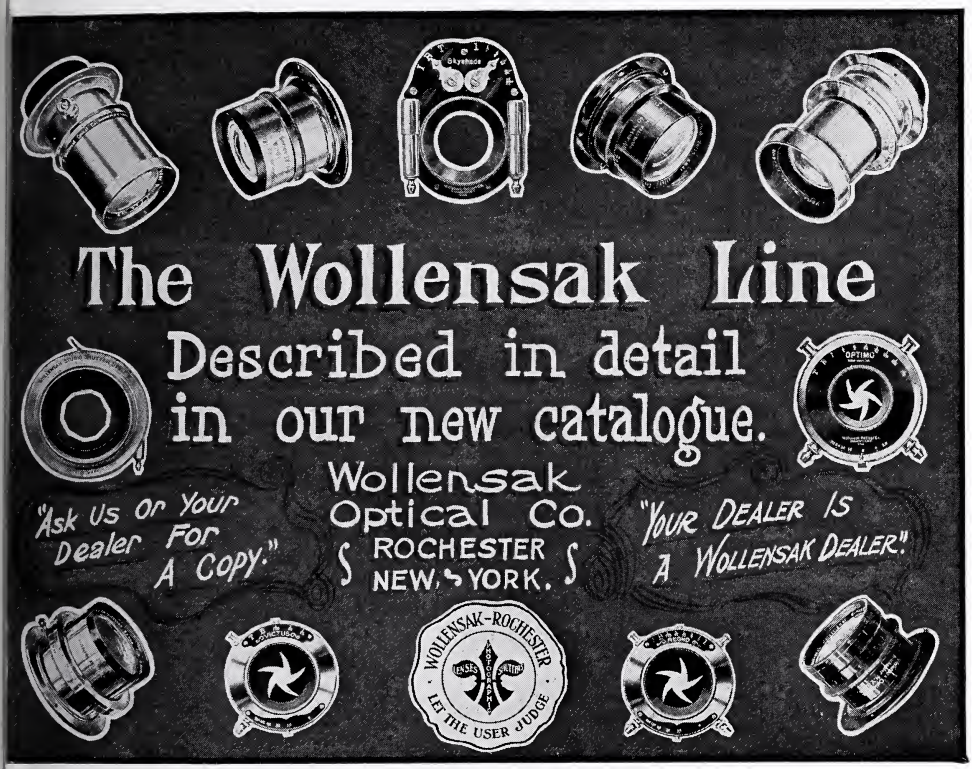
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Line Combinations
A Method of Spotting
The Placing of Figures
Different Principles of Representation
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Foreground, Middle Distance and Distance
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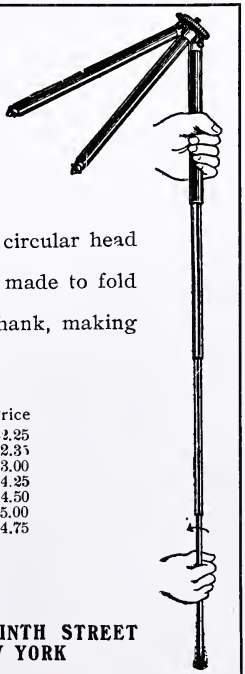
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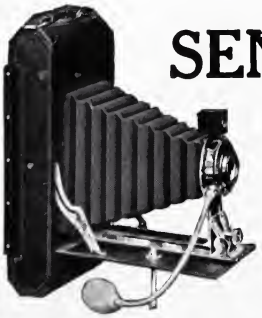
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INDIAN MAID — *Dr. J. K. Dixon*

The Photographic Times

VOLUME XLIV JUNE, 1912 NUMBER 6

MORE HISTORY WITH THE CAMERA

BY THE EDITOR.

With Five Illustrations, by Dr. Joseph K. Dixon.



THOSE of our readers who were interested in our article on "Writing History with the Camera," which appeared in the April number of THE PHOTOGRAPHIC TIMES, with illustrations by Edward S. Curtis, the noted Indian Photographer, will be glad to see some further Indian pictures, we are sure, made by another sympathetic and talented photographic artist.

The pictures which we have the privilege of presenting to our readers in this number of our magazine, were made by Dr. Joseph K. Dixon during the two extended expeditions which he made in 1907 and 1908 to the North American Indian Country, equipped and sent out by Mr. Rodman Wanamaker. All of the pictures are copyrighted by Mr. Wanamaker, and are reproduced here through his courtesy.

The pictures shown give but a hint of the researches of the expedition conducted by Dr. Dixon, which was authorized by the United States Government, and nearly 5,000 negatives and 32,000 feet of motion picture film were made, of intimate Indian tribal life; of their manners and customs; of the Indian country itself; of Indian homes and home-life; of Indian warriors and warfare, and particularly of the tragedy of Custer and his gallant troopers; and of the rites, symbols and mysticism of an interesting race that is fast passing into oblivion.

The pictures made during the second expedition are particularly interesting and valuable, as they illustrate the "Last Great Indian Council," at which were assembled the eminent Chiefs from the prominent reservations of the United States; they furnish a rare and authentic exposition of Indian costumes and customs. Some of the most noted Chiefs died very soon after this Council, and can, therefore, never be photographed again.



"THE OATH"

Dr. J. K. Dixon



INDIAN TEPEES *Dr. J. K. Dixon*

In an interview with Dr. Dixon's son, who had charge of the exhibition of his photographs at the Union League Club in New York, we learned that the negatives were all made with a No. 3A Kodak and a Graflex Camera. Both films and plates were used, and the exposures were instantaneous as well as timed. For purposes of exhibition, the negatives were enlarged to about 18 x 22 on carbon paper of a sepia and red chalk tone. The exhibition above referred to, at the Union League Club, was a notable one in every respect. The only previous presentation of these pictures was a private view given before the President and Mrs. Taft, the Cabinet, and a few specially invited guests at Washington.

The frontispiece to this article, which serves also as a frontispiece to the magazine, is entitled, "An Indian Maid," and is an excellent picture of a typical Crow maiden.

The initial letter illustration is a particularly striking picture entitled, "Lighting the Smoke Signal," which shows a Crow Brave lighting the smoke in the gray-blue of the early dawn, which calls the tribes to Council. "And the smoke raised slowly, slowly, through the tranquil air of morning; down the rivers, over the prairies, up the mountain slope, came the warriors of the nations, to hold their last, great Council."

The full page picture, entitled, "The Oath," represents a dramatic custom of the Black Feet Tribe, and is a particularly fine picture of four typical braves of this nation.

The cover illustration shows the historic hill on the battle field of the Little Big Horn, where Custer and his brave officers made their last stand, and where they were killed to a man. The wooden cross marks the spot where they found the gallant Custer's body after the massacre. The four Indians in the picture are Custer's four scouts, "White-Man-Runs-Him," "Curley,"

"Hairy Moccasin," and "Goes-Ahead." They are all Crow Indians. "White-Man-Runs-Him," was the Chief of the Scouts; but "Curley" was the Scout to whom Mrs. Custer refers so often in her fascinating book entitled, "Boots and Saddles."

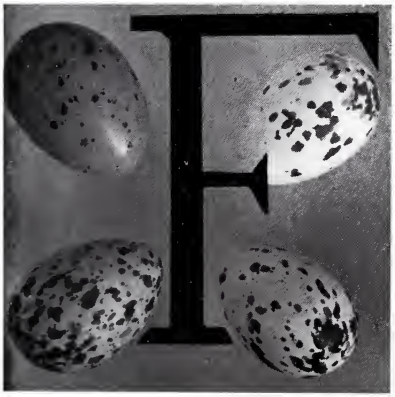
The final picture shows the camp of the expedition, and is a particularly effective picture, with the typical Indian Tepees in the foreground amongst the trees, and the characteristic sky of the great Northwest.

THE PHOTOGRAPHY OF BIRDS' EGGS

BY DR. R. W. SHUFELDT, C.M.Z.S.,

FELLOW OF THE AMER. ORNITH. UNION, ETC., WASHINGTON, D. C.

With Six Illustrations by the Author.



FEW, if any, objects in the entire range of inanimate biological or natural history material give the zoölogical photographer more trouble to obtain perfect photographs of than do birds' eggs. As these are being photographed continually by naturalists, or more strictly speaking, by avian oölogists, all over the world, and with wide variation in the matter of success, it has occurred to me that my studies and experience in this field may be of more or less interest in many places where such work is carried on. For this reason the present article with its illustrations has been prepared.

A good many years ago I published something on this subject; but my methods have been changed and improved since that time. Some of this improvement has developed quite recently, as I have, through the courtesy of Mr. Edward J. Court, of Washington, D. C., been permitted to photograph a large series of birds' eggs belonging to his superb private collection. Many of his specimens are of great beauty and rarity, a very large number of them being the eggs of the birds of Australia.

In January (1912), I published some of my results along these lines in *The Emu*, the official organ of the Royal Australasian Ornithologists' Union, and the editor, Mr. A. J. Campbell, kindly reproduced, out of a dozen or more sent him, three of my plates. None of these latter are used in the present connection, nor have they been submitted elsewhere; some of them are here reproduced to show faults that are to be avoided in this line of photography, as well as how to avoid them.

I have given the scientific names of the birds which lay the eggs here

figured, so that my figures will be of value to the naturalist as well as to the technical photographer.

To be of the greatest scientific value, and at the same time represent the most advanced photography, our work of this character should represent achievement in "color photography." Unfortunately, I have had no experience in that art, and can therefore contribute nothing to the subject. Some of the finest color photography of birds' eggs I have ever seen were specimens of plates of that character sent to me for criticism by H. E. Dresser, Esq., F.Z.S., the distinguished British ornithologist; they are perfect wonders in their way, and I doubt if better are to be met with anywhere.

In preserving birds' eggs of any size for collections, the contents are blown out of them, or taken out by other means, if incubation has materially advanced. This blowing of eggs has become a little science in itself, and special instruments are required for its proper performance. I have seen eggs blown so skilfully that it required a moment's search on the shell to find the little hole which had been drilled in it for the purpose. This hole is always made on the least attractive side of the egg, so that its prettiest side can be exhibited when placed in the collection tray. After blowing—or removing its contents—and drying, all eggs of birds are more or less fragile objects, depending upon their size, thickness, and composition of the shells, and upon the presence or absence of cracks. Their fragility adds to the trials of the photographer of them, and their extreme lightness and form offer still other difficulties to be overcome in this class of work.



(Fig. 1)

As birds' eggs are marked and colored in nature in a great many ways, we should take this into account in selecting our plates, screens, lens, etc. Chief among the colors seen are various shades of the browns, blues, greens, buff, ochre, yellows, reds, pearl, grays, etc., as well as black, white, and various shades of cream.

With but few exceptions, most birds' eggs should be photographed natural size, the exceptions being such eggs as those of the ostrich, emu, and other struthious types. The best, most characteristic and perfect side of the egg should be turned toward the camera and invariably



(Fig. 2)

be the aspect photographed. Exceptions to this rule are to be observed when any two aspects of an egg are especially unlike, as in the case of a white egg being wholly so upon one view, and exhibiting pronounced spots or other marks upon another; two photographs are then required to illustrate its description.

Sometimes the white eggs of owls are so nearly spherical that they may —everything else being equal—be photographed from any point of view. Still other birds' eggs are either ovoidal or ellipsoidal in form, and either bluntly or acutely so.

Now in this article it is not my intention to touch upon the question of photographing birds' eggs in *trays* or *in situ*,—that is, in position where the bird laid them, as on the ground, or rock, in a nest, etc. Such pictures are of decided value for some purposes, but not for the object to be attained here,—that is, the scientific representation of birds' eggs. A lot of eggs photographed in a tray is rarely of any value, and I have hardly ever lent my time, labor and material to such an operation.

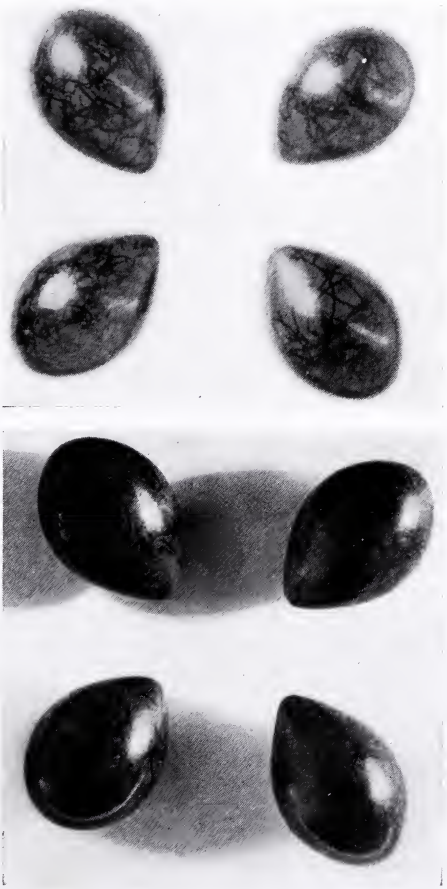
However we may sustain or support the egg to be photographed, it must be done in such a way that its *exact form* is preserved in the resulting negative. In the case of an absolutely spherical egg (were such a bird's egg ever laid, which I do not believe has ever been or ever will be), it may, of course, in so far as its *form* alone is concerned, be photographed from *any* point of view, for its perfect spherical shape will not be altered. Should the egg, however, be ellipsoidal in form, it is clear that unless the egg be so supported—and directly opposite the camera—that the imaginary visual line is perpendicular to the long axis of the ellipsoid, and at its middle point, the resulting figure or form of the egg will be *shortened*. This also hold true for an egg of the ovoidal form; for, if we raise or lower either end, we get both a *blunter* and a *shorter* egg in the resulting negative. Therefore, we must make sure, by exact compass measurements on the ground glass previous to exposure, that the visual line is perpendicular to the long axis of the egg at its middle point, and that *both these lines are in the same plane*. If from two to ten or more eggs are to be photographed on the same plate, the conditions be-



(Fig. 4)

come much more difficult to carry out; for every single egg, which is to appear in the resulting negative, must previous to exposure, be so *turned* that not only the desired aspect of the specimen is properly presented to the camera, but that *all* the long axes are given such an angle with the visual lines that no shortening takes place in the resulting negative of any one of the specimens. This can be effected by so turning the eggs, and by constantly testing their forms on the ground glass with the compasses that final accuracy will, in due course, be arrived at.

I use a 5 x 8 or an 8 x 10 camera, depending upon the size of plate I desire for the purpose of publication; the principles thus far set forth, however, will be the same for cameras of all sizes. Your camera, by some of the modern devices, must be so set that it will operate vertically,—that is to say, exposure can with facility be made with the visual line perpendicular to the floor of your studio or wherever you are making the pictures. In most instances, the background should be a dead white, while in some cases, eggs appear well when a black background is used, and from a practical point of view, this is likewise desirable—everything else being equal—when we aim to get rid, with the least amount of trouble, of all reflections and shadows. For the white background I use a large sheet of thick, white blotting paper, which must be perfectly free from all marks or blemishes of any kind whatever. Black velvet makes a good black background; but it is apt to be troublesome on account of reflections. Black photographic paper,—the dull, dead-black kind,—is often better. Whatever background is used, it must be perfectly clean, perfectly flat, and thick so it will lie well, and of ample size,—a yard square or rather less is a good size, and not at all too large.



(Fig. 3)

If not already thoroughly known to you and frequently tested upon previous occasions in similar kinds of work, the next step is to carefully study the light you are to use. Although flash-light, gas, and electric light can all be used to advantage, I refer here to an ample supply of daylight only. This may come from an over-head light, and, if there is plenty of it and shed in a some-

what oblique direction, there can be no better. However, in most of the rooms where zoölogical photographers do their work, there is no such convenience, and reliance is generally placed upon from one to five windows. By the use of shades, *white reflectors* and other well known contrivances, one with the requisite amount of experience can very soon so far *control* or *command* the required light that an object, the size of a pigeon's egg, suspended near the floor below the lens of a vertical camera, will cast *to one side* a more or less soft, diffused and tempered shadow. When this place has been located to a certainty, spread out upon it—flat on the floor—your selected background. Over the latter you now support a pane of *clear, thin* glass, about 14 x 20 inches in size, perfectly clean and free from all blemishes such as air-bubbles, etc. It must be parallel to the background on the floor and about 14 inches above it. Any suitable support will answer; but it is best to have them made for the purpose so that they can be used without any delay, and with a certainty of stableness, keeping the glass firm and immovable in the plane parallel to the background. In fact, a frame can be made to resemble a miniature four-legged table; this to be turned upside down, placed on the floor, your pane of glass resting on the ends of the four legs, with some contrivance added to keep it immovable.



(Fig. 5)

All of this, as stated, goes on the floor beneath your vertical camera; at the side of the latter—not interfering with the light—you must have a chair or light stepladder to stand on while you are focusing. Now put some small object, that will not roll around, on the glass, near the middle, about the size of the egg you intend to photograph. Focus sharp on this with a full open shutter and study the lights, shadows and reflections on your ground glass.

Now say, for example, it is your intention to make a negative of three murre's eggs, such as are shown in Figure 1, and you desire to get them all natural size and all on a 5 x 8 plate. It would be impossible to get these three eggs to stand on the glass as you wanted them without something to keep them in place. I used to use warm wax for the purpose; but there was always danger of breaking the specimen, to say nothing of several other inconveniences in this method. If not supported in some way, their apices are certain to dip down, and thus shorten and distort the figures in the resulting negative. My present plan is to use little piles of fine wheat flour, each of a size, and one beneath each egg. This does not stick to or deface the specimen in any way, and admits of instantly turning the egg upon it in any direction, and of

keeping it *exactly* in place. There must be just sufficient flour to keep the egg well off the glass, and yet not run the danger of being seen beyond its limiting outline. I assure you, it works with great accuracy and certainty, making it a pleasure to use it.

Figure one represents quite a perfect result in the photography of eggs, and is, at the same time, a splendid example of the wide variation in the eggs of the same species of bird. The ground-color of the upper one is almost white, faintly tinged with blue; the one with the blotches is a dark blue, while the third is, in the aforesaid respect, a shade between the two. As a general rule, all over the world oölogists figure their eggs with apices *down* and butts toward the top of the plate or page; this should have been done here, instead of arranging them as I have. However, the shadows are pretty well controlled, and withal it is, I think, a useful and attractive plate.

Figure two gives an example where the shadows are poorly managed. One or two of the eggs themselves are very good. In color they are a beautiful sky blue, overlaid with a somewhat coarse, raised net-work of lime-like substance which is pure white.

There are a few eggs that I have never, as yet, obtained satisfactory photographs of, and I must try again till I succeed. Among these are the eggs of a species of Australian Jacana; they are shown in two sets in Figure three. The egg itself is of a deep snuff-brown, with extraordinary, black, scraggly lines all over. It has a polish of the very highest order, exceeding anything of the kind I have ever seen, rivaling the richest and glossiest porcelain. Over and over again I have tried this egg, and it is truly remarkable when we come to note some of the effects of the light upon it. Good examples of this are shown in Figure three; it takes almost *white* in a flash-light.

The use of a black background and its effect is well shown in Figure four, and the perfect use of the white background in Figure five.

Figure six is a fair example of nine eggs taken upon one



(Fig. 6)

plate; it required the better part of an hour to arrange these correctly, with an open shutter, and when the exposure was made, stopped down *very fine.* In the meantime, however, the light had altered not a little; so, while some of the shadows are excellent, others are too strong from the opposite direction. While the balance here, in the matter of arrangement of size, is perfect, all of the apices of the eggs should nevertheless—according to the prevailing custom—have been turned the other way. I introduce our friend the Jacana's egg again up in the upper righthand corner, in order to show, by contrast, how miserably it photographs in comparison with other eggs,— for example the one at the other end of its own row.

Figure 1.—Egg of the Murre (*Uria troile troile*). Natural size and showing great variation in color and markings. Photo by Dr. Shufeldt.

Figure 2.—Set of four eggs of the Australian Guira (*Guira guira*). Natural size. Photo by Dr. Shufeldt. Very objectionable shadows.

Figure 3.—Double set of the eggs of the Comb-crested Jacana (*Hydralector gallinaceone, Australia*). Showing objectionable high lights; refractions; indistinctness, and incorrect handling of shadows. Photo by Dr. Shufeldt.

Figure 4.—The egg in the middle is of the rare Australian Regent bird (*Sericulus chrysocephalus*); the other two are eggs of the same species, showing the remarkable variation in the eggs of the Australian Raven (*Corone australis*). Designed to show effect of black background. Photo by Dr. Shufeldt.

Figure 5.—The small egg in the middle is of the Australian White Tern (*Gygis alba*); the other two are Kittiwake Gulls (*Rissa trydactyla*), showing great variation. Example of perfect photography. Photo by Dr. Shufeldt.

Figure 6.—Eggs of Australian and other birds. Designed to show a number of eggs on the same plate. Photo by Dr. Shufeldt.



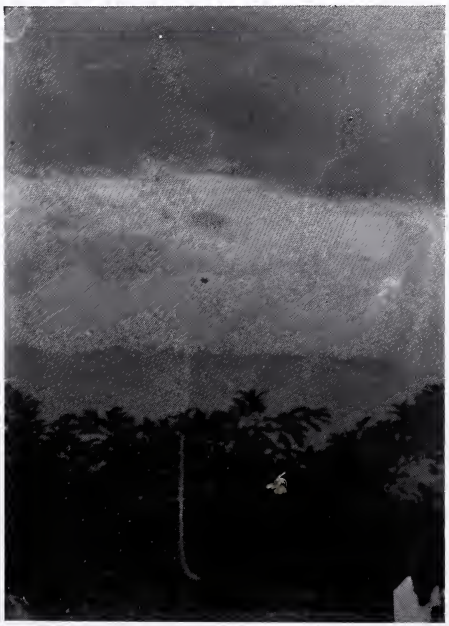
TELESCOPO-PHOTOGRAPHY WITH A HAND CAMERA

BY PROF. F. H.

With Five Illustrations by the Author.



THE telescope used in producing the moon pictures was one of A. Bardou, Paris, with a magnification of 45-50x for terrestrial views and 110x for astronomical purposes. I have selected the astronomical attachment because it gives a larger picture and reflects the view which is inverted when seen through the telescope alone, in its natural position when seen on the focusing screen. It is a matter of course that the ocular of the telescope should be about of the same size as the front lens of the camera. The two instruments should be so placed as to bring the two lenses into close touch with each other. An old black silk umbrella cover or a black or red scarf tied closely around the two lenses will prevent foreign light from entering the apparatus. The view seen through the telescope will thus appear on the focusing screen and what you see on the screen, whether through a telescope or microscope, will also appear on the plate, if properly timed and developed. You may photograph your neighbor on the other side of the street in tolerably good size if he or she happens to look out of the window, but the picture will appear in a circle just as you see it through a telescope. This shortcoming, if it may be so-called, need not be counted with in the case of a moon picture because all the surroundings will appear dark, whether produced by the metal ring of the telescopic ocular or the comparative darkness of the sky.



The waning moon, as shown in our illustration, was photographed at 8.00 P. M., on December 7th, with a B. & L. Zeiss Tessar, *f*6.3, on a 4 x 6 inch plate of 26° speed, Warnerke. The lens was stopped down to about *f*7 and



the exposure was three seconds. This is, of course, too much for an absolutely sharp picture because Lady Moon walks too fast for an instantaneous view; but I was told by an artist that from his point of view the soft outlines are preferable to a sharp view. If I were to construct a night view with the moon as represented in our illustration, I would photograph it with the telescope on a film of very large size; and then I would photograph with an ordinary, or a telephotographic lens, on a plate or on a film of the same size a landscape with clouds reflecting sunlight, the sun standing in about the same position as the moon on the film.

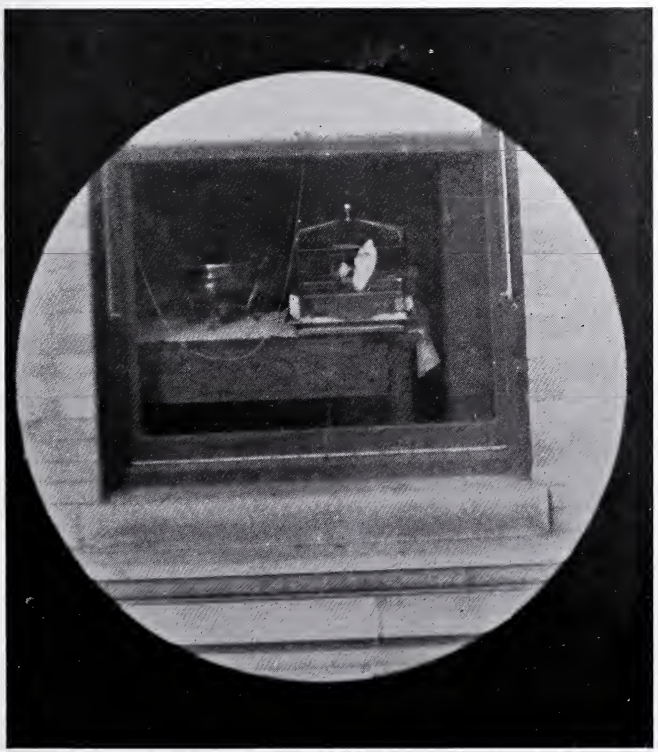
In printing the landscape the film containing the moon picture should be laid in contact with the paper, and the landscape with clouds should be placed



THE WANING MOON

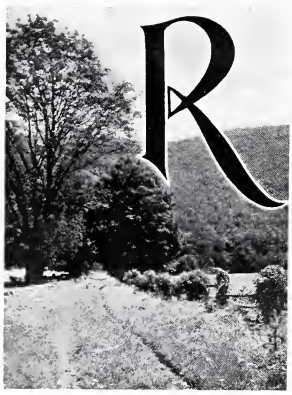
above the moon film. The landscape will thus appear in somewhat softer outlines than if it were printed in immediate contact; but this will improve the picture, because you do not see things so very sharply at night. The dimness required for a moonlight scene will be produced by the darkness of the sky in the film containing the moon.

To photograph terrestrial objects in the daytime I would suggest to first make a careful calculation of the time required to take the view with the ordinary lens and opening, and with a telescope like the one I have used multiply the time of exposure by 40 or 50, which rate may probably be improved by experiment. All the illustrations to this article were made without any special apparatus, other than an ordinary hand-camera and a telescope.



PRACTICAL NOTES

BY G. WATMOUGH WEBSTER.



READERS will say, "Oh, throw the silver down with liver of sulphur and send the precipitate to the refiners." Naturally that is what should be done with the bulk of it, though we know that many photographers in a big way of business simply pour it down the sink, an action that is positively sinful, seeing the large amount of precious metal so easily recoverable. Most photographers throw down the silver from their print washings; but the amount that can be obtained from hypo is larger than that from the washings, especially when the negative fixing baths are also added to the hypo solution used for prints. And there is further the increased value of the metal obtained from print fixing on account of the gold associated with it, and still more so, when all old gold toning solutions are also added. We know of the case of a firm in South Africa doing a very large trade with amateurs where the operator simply poured down the sink gallons of gold toner whenever their results did not please him. As is well known it is useless to try to precipitate the gold from sulphocyanide baths in the simple manner possible with the old alkaline toning baths, *i.e.,* with sulphate of iron. Indeed the collection of gold from that source is by no means work for the amateur chemist. The simplest plan is to add them all to the waste hypo, and those who try this plan will be agreeably surprised at the increased amount per ounce allowed by the refiners for the silver obtained this way. There is, however, another casual use for some of the old hypo solution which was in our mind before we were carried away by our Pegasus when the question of residues arose. It will be found that these old baths, and particularly so when well charged with silver by being used to dissolve the chlorides from waste prints and print clippings, act as most efficient toning baths, though we should not like to vouch for the permanency of the prints so toned, unless they were afterwards fixed in fresh hypo. We are credibly informed that a well known professional photographer makes a point of using this method of toning his rough proofs on P.O.P., when by accident they are too darkly printed. It must be understood that prints thus toned require to be extremely deeply printed. They are merely placed, without washing, into the old hypo, and before long take on a very rich purple. If they be afterwards fixed with fresh hypo they must be watched closely, or they lose their rich colors if left for too long a time in the new fixer.

Protecting the Fingers.—This question of perennial interest is a most important one to some workers owing to their liability to one form or other of chemical poisoning, be it metol poisoning or bichromate poisoning. We know



WHEN NATURE BEGINS TO AWAKEN *H. A. Brodine*

that the workers in match factories are liable to what is known as "fossy-jaw," which, if not fatal, leads to terrible disfigurement and in a slight form, though sometimes most intractable, there is a most painful state of sores on the hands, mainly brought about in some workers by even very occasional contact with metol solutions, and again in others by similar trivial immersion of the fingers in solutions of bichromates, as in working the carbon process. Then again there is the annoying staining of the fingers resulting from contact with any of the usual developing solutions. Perhaps the most commonly recommended remedy, or rather, preventive, is to well smear the finger ends with vaseline to prevent them from coming into actual contact with the injurious chemical solutions. We would, however, point out that the evil effects can be largely modified, if not actually prevented, by the simple expedient of dipping the fingers, so as to well soak them as it were, in plain water before handling the prints or plates, and then to hold them under the tap for a second or two to wash off the offending solution. As this is palliative rather than absolutely preventive our strong recommendation to workers with metol or bichromate idiosyncracy is to wear index rubber gloves (with or without fingers). Those using them for the first time and not persevering in their use are apt to say that they cannot work with them. We admit that at first they are a real nuisance; but by making a point of invariably putting them on when developing, etc., they become in time almost unnoticed. There are two points to bear in mind. As there are some interludes in the work—handling plates when filling in, or counting out the bromide paper, postcards, etc., it is quite necessary to take off the gloves occasionally. If pure rubber gloves are em-



ANTHONY WAYNE AT VALLEY FORGE

ployed they soon become damp from condensed vaporous perspiration, and are then most difficult to put on or off with expedition. The first point is that if a small dredger containing powdered talc or "French chalk" is always kept at hand and a little of the powder sprinkled into the gloves, especially the thumb, this difficulty disappears. Further they should be frequently turned inside out and scrubbed with a nail brush and water. The other point is that if, instead of the usual laboratory gloves of pure rubber, gloves of rubber-cloth,—rubber outside, and linen inside—this trouble does not occur. They slip on and off quite easily if they are periodically washed and dried, and besides, being thinner, their employment is more quickly got used to and felt to be less of a hindrance to manipulation.

A Use for Old Bromide Paper.—There are few who do not find themselves on occasion with a stock of bromide printing paper on hand, which from one cause or another—light struck, too old, etc., etc.,—has been laid aside for the residue collector; but we have recently heard of a photographer who finds himself able to utilize it in his daily work—for printing rough proofs, which in a large business involves the expenditure of no inconsiderable amount of P.O.P. Our readers would naturally say upon reading this that the saving is not worth the extra trouble of developing, etc., but this we may say at once is not involved; the new plan is simply to make use of the old stock as a printing-out paper. The method of procedure is an ingenious adaptation of an old dodge with albumenized paper. Those of our readers who have been photographers long enough to have graduated in printing on albumenized paper—now almost entirely out of date—may remember one method once recommended for avoiding the inevitable browning which rendered the paper useless, consequent upon keeping it for a day or two. It consisted in washing all the free silver from the surface directly after sensitizing—after which the paper would keep good for weeks; but would take days, or weeks, rather than minutes, to print,

To make it available for this purpose all that is necessary is to saturate it with the vapor of ammonia. The simplest method of doing this is to store it when required for use in an earthenware jar with a lid, first placing at the bottom of the jar a saucer or cup containing a small quantity of strong ammonia solution (covered of course so as to prevent contact of liquid and paper). The lid also is also made to fit almost air-tight by laying upon the mouth of the jar a piece of wide rubber cloth of the requisite size, pressing the lid upon it. Any old hand who was accustomed to the "fuming" of sensitized albumenized paper, an almost universal practice, at any rate in this country, years ago, will need no instruction about this matter. It was found that the washed paper, virtually insensitive before treatment, became quite as sensitive if well fumed as the ordinary untreated paper, with the added advantage of toning with perfect freedom from mealiness. It was observed, however, that the ammonia was apt to become dissipated before the printing was complete and the paper again became insensitive. The photographer we speak of operates his old or waste bromide and gaslight paper in exactly the same manner; but, to avoid or minimize the loss of the ammonia during printing, instead of fuming the paper alone he also fumes the thick felt pads of his printing frames, quickly covering them with the rubber pads such as are used for platinotype printing, but, of course, in the reversed position as regards pads and paper. He finds that the paper under those conditions prints out very satisfactorily, and further, with at any rate most brands he is able to tone it as though it were ordinary P.O.P. if he so desire though as explained, his main idea is to employ the paper as a saving of P.O.P. so commonly used for "rough prints."

Care of Platinotype Paper.—It needs no words from us to emphasize the necessity for keeping platinotype paper as dry as possible before printing, and of course, after printing, though we may observe that some printers make a point of leaving the paper exposed to the atmosphere for some time when they wish their prints to possess certain characteristics. We have noted a tendency in some workers to be careless in this matter of "keeping their powder dry" and our present purpose is to emphasize the need to do so as emphatically as possible. Few people have any idea of the avidity with which cellulose—the main constituent of paper—absorbs moisture. It is avid of moisture almost—almost but not quite—as the chloride of calcium used for drying the air in the tin in which the paper is stored. We have placed cotton wool in a dry atmosphere ranging in temperature from 70 to 80 degrees F., for several weeks, and then weighed it before and after placing in the drying oven for an hour. It lost nearly one per cent. of its weight. Hence, again we say too much care cannot be exercised. There are a variety of preservative vessels made for the purpose, consisting of a chamber with a detachable box for holding the chloride of calcium-impregnated asbestos and their employment, or home-made substitutes, is imperative if the best results in printing are to be obtained. But in a large establishment dealing with many different sizes, unless such chambers are used for each size the constant opening scarcely leaves an opportunity for the dryer to act. The constant opening and shutting admits

the fresh undried air and so the paper quickly loses its initial dryness. One printer that we know of does his best to obviate this difficulty by using the large tins to hold a number of small tins each holding one size only, the tins he uses being simply the tins in which the paper is sent out by the maker. The lid with its self-contained cutter, however, has an aperture which would admit air, and this he closes by the simple expedient of filling it up with sealing wax which he finds to adhere persistently when he heats the tin till hot enough to singe the varnish. He then slips the roll of paper divested of its wrappings into the tin, where it clings round the sides and fills up the open space by a muslin bag containing a large number of pieces of the special asbestos. There is then so small a bulk of air to desiccate that the paper is preserved even better than in the more pretentious apparatus. We commend this plan to our readers interested in platinotype work and also another precaution he adopts *never* to breathe upon the paper while handling it, and above all never when examining the prints in the frame and finding pieces of fluff or dust on the paper to *blow* it off with his breath.



LONDON NOTES AND NEWS

F. C. LAMBERT, M.A., F.R.P.S.



THE chief event of the month is the publication of the details of the Rheinberg color process—or to give it the full style and title, "The microspectra method of color photography by prismatic dispersion." This was fully described in a long and elaborate paper by the brothers Julius and Ernest, who have brought a vast fund of patience and skill to bear upon the various difficulties with which they have had to contend. The authors pay graceful tribute to Lanchester, Cheron, Lippmann, as fellow workers or pioneers in the same general direction. Nevertheless all the several workers have followed more or less independent roads. Briefly outlined the general scheme is somewhat as follows: We have a camera with a rather long body. At the front end is a lens of the usual photographic type. This throws an image of the object that is being dealt with on a ruled screen. This consists of alternate and opaque parallel bands. The one in use consisted of 370 lines to the inch. The clear spaces are one-third the width of the bars or opaque bands. On the further side of this ruled screen or grating is another lens similar to the first-named one. This throws an image of the previously formed image on the grating onto a narrow angled prism. Now a moment's thought will show us that the light coming through each clear space of the grating will by the prism be spread out into a spectrum band. We must next suppose that matters are so arranged that these spectra are thrown onto the ground glass focusing screen of the camera and so contrived that these bands of color join up edge to edge, so that there are no dark or unilluminated parts at all when the objective or first lens is pointed to a white object. In such case the ground glass is occupied by a continuous series of lines of color, red, green, violet, red, green, violet, and so on. Those are, however, so narrow that the normal eye at normal distance sees no lines of color, but an evenly distributed lightness or white. But suppose now we pointed the camera to some object which reflected red rays only, we should only get the red bands on the ground glass while the green and violet bands would be darkness, and so to the eye the screen would appear red. Pointing the camera toward an object which reflected red and green rays only, the ground glass would have red and green bands, but no violet bands, and the red and green bands seen together by the eye would not appear as red and green, but would give a collective sensation of yellow. Pointing the camera to a colored object of any kind we get on the ground glass an image of that object expressed in minutely narrow lines or bands of color corresponding precisely

to the colored rays reflected by that object. Thus a yellow object shows green and red, a magenta object red and violet, and so on; a white object shows all the spectrum color and a non-reflecting, *i.e.* black, object shows none. Suppose for example the object to be a green cross on a red ground. Exposing and developing a negative we get the cross made up of bands corresponding to the green lines only, with clear glass where the red and violet lines are, while the background in like manner is made up of clear spaces corresponding to the violet and green lines and silver deposit where the red lines of light fall on the plate. (The plate has to be equally sensitive to all colors, of course.) A contact positive is made and then placed in the camera so as to occupy the *exact* position of the negative (hence the need for great care in accurate registration). This positive transparency acts as a mask made up of lines. When properly placed the opaque lines of the cross would block out the red and violet parts of the spectra, but the clear part would transmit the green part. Similarly in the background part the green and blue would be blocked out and the red rays permitted to pass, thus giving a green cross on a red ground. A moment's thought will show us that if the positive, or mask, is not correctly registered, we get an untrue effect. The same camera is used first for *taking* the negative, and then may be used for *viewing* the *positive,* or as a projection apparatus when a suitably strong beam of light is sent through it. Numerous examples made by this process were shown on a metallic surface lantern screen and elicited much well-deserved admiration when shown a few days ago at the R. P. S.

Perhaps one might add that the apparatus is rather bulky when compared with the ordinary camera of to-day and moreover, it is necessarily of somewhat expensive character which is not to be wondered at, seeing that it contains two high-grade lenses, a grating, a specially designed prism of three glasses, and a certain amount of very accurately made rack work. I have described it somewhat at length because it is an epoch-marking process, not entirely new in conception, perhaps, but new in the sense of having been brought to a state of perfection which reflects great credit on the brothers Rheinberg.

It is interesting and suggestive to observe how, from time to time, old processes are revived and applied in new directions. A striking case of this was given at the L. and P. a few days ago when Mr. Finlay revived the old "Dusting-on" or "powder" process, showing how it enables one from a single positive print on a Thames plate to multiply any number of positives in contact with a Thames color screen, and so at one operation secure perfect register and absence of parallax effect.

Doubtless the reader already understands that by this process we get a "countertype," *i.e.,* positive from positive or negative from a negative. Mr. Finlay's formula is as follows. A.—Gum arabic, 5 parts; water, 100 parts. B.—Sugar candy, 8 parts, water, 100 parts; C.—ammonium bichromate, 8 parts; water 100 parts.

Take two parts A, two parts B and three parts C, mix and filter. Flow this evenly over a piece of clear and very clean glass. Drain off the super-

fluous liquid. Then put the plate in a whirler and dry it over a fire or gas stove, away from daylight, but not warming it beyond a temperature that the back of the hand can comfortably bear. As soon as the plate is quite dry and while it is still slightly warm, put it in a printing frame along with the negative. or positive to be reproduced, film to film, and expose to bright diffused daylight for say a couple of minutes, for a moderately contrastful printing negative or positive which one may take to be represented by the contrasts of a good lantern slide. After printing open the printing frame in the darkroom, lay the printed, coated glass (film side up), on a sheet of paper and lightly dust all over it some very finely powdered plumbago—preferably of the fineness used for electrotyping—applying the powder with a tuft of cotton-wool. It will be observed that corresponding to the dense parts of the printer, which protected the underlying part of the bichromated film, this part soon absorbs moisture from the air and becomes sticky, so holding the powder. But where light has passed through the printer, it has rendered the bichromated gum and sugar incapable of taking up moisture, and so the powder does not adhere to these parts.

Now for Mr. Finlay's application to the Thames color process. The reader may be reminded that in this process generally, but not always, we have a positive picture on one plate, and a color-dot screen (red, green and violet) on another plate. When the two are put film to film in true register we get a color picture. Now in this process the color-dot plate is a regular grain arrangement produced by mechanical means. Consequently if the same positive be multiplied the duplicates can be brought into register with other color-dot screens. The novel point to note is that this dusting-on method enables us to print a positive from a positive as follows: A color-dot plate is taken and coated with the above quoted bichromate mixture and dried as directed. The original Thames positive is brought into register and the two plates held together by a couple of "bull dog clips" at opposite edges. The printing now takes place through the original positive. This is removed and the plate dusted with plumbago. When the original positive is duplicated in contact with the color-dot screen, so we get no shifting and no parallax. Perhaps one might just add that mention is made of this special application of the powder process to the Thames color plate for the benefit of those who have spoiled some negatives by the Thames process and yet have left over some of the color screens that they would like to utilize. I shall have something more to say about this fascinating process as soon as I have finished some experiments which are now in hand.





"JOUEUSE LA MANDOLIN" *Floyd Vail*

Editorial Notes



PERHAPS the most remarkable property of the modern dry plate is that which is least seldom thought of at all—viz., its power of accumulating light impressions of too feeble a degree to be visible to the eye until sufficient effect has rolled up, as it were, to afford a developable image. The microscope gives us an additional eye for the infinitely little, the telescope extends our vision into infinite distance, the dry plate enables us to see the infinitely feeble light, using the term infinite in its general, but not strictly mathematical, sense. This is one of the properties which has rendered it of such signal service to the astronomer. Another quality is that, unlike the human eye, which can only look at one thing at a time, it can use its million eyes to look at a million different things at the same moment.

THERE is a growing fashion in certain quarters for what is called "local toning." Sometimes the effects are quite acceptable, as for instance, in the case of a sleeping child in bed when the head (face and hair) is toned to a brown (of sorts), while the rest of the bromide print is in black and white. But in another case lately seen, we had a flower toned to a pale yellow brown, while the rest of the subject remained in black and white. Now in this case, when the whole picture remained in black and white, the color question did not arise in one's mind at all. But when the flower part is suggested in color—even though this be not a very satisfactory suggestion of the natural colors of the object—then the mind asks why do we have color suggestion in one part and not in another? Who ever heard of black and white leaves and stalks!

WE are glad to be able to show our readers another picture by our friend, Mr. Floyd Vail. This time his contribution is a figure picture entitled "Joueuse La Mandolin." The picture is a particularly happy one, and the artist succeeded in catching a listening expression on the face of his model. This picture is from a 6½ x 8½ negative, which was enlarged for exhibition purposes. It was shown in Paris a number of years ago, where it received a gold medal.

REFERRING to the excellent picture entitled, "A Misty Morning," which Mr. Vail contributed to our issue last month, he writes that it was made with an Eastman Kodak, a number of years ago, but was never exhibited.

JUDGING from the not infrequent requests for a cheap and efficient lantern-slide developer, for occasional use, it would appear that there are a good many photographers who have a collection of negatives, and want to make a few slides therefrom for lecture or demonstration purposes. For the purpose hydrokinone, otherwise quinol, is eminently suitable, and here is a formula that will be found to work well with any good lantern-plate, provided the solutions are not stale and, *nota bene,* not too cold, *i. e.,* not below 60 deg. F., and preferably about 65 deg. F. Take a couple of clean 2 oz. bottles, A and B, with good, sound corks. Into A put 1 drm. of soda sulphite, and nearly fill the bottle with warm water. When the sulphite is dissolved add 4 grs. of potassium bromide and 16 grs. of quinol. Then fill up the bottle with water. Into B put 16 grs. of caustic soda (sodium hydrate), and fill up this bottle also with water. To make up a developer, take 2 drms. of solution A, 2 drms. of B, and add water to make a total of 1 oz. Note the time which elapses between pouring on the developer, *i. e.,* the first appearance of the image—say, one minute—by way of example, and then continue development about four times this—say four more minutes, or a total time of five minutes. As to cost, quinol per oz. 5½-6d., soda sulphite per lb. 6d., potass bromide per oz. 1d., caustic soda 1d. The last named must be kept in a well-closed bottle. Between the cork or stopper and bottle-neck introduce a piece of waxed paper, and lightly smear the inside of the bottle-neck with a touch of vaseline. The above solutions do not keep very long in good order, and when stale are liable to give stains which are practically irremovable.

WHEN a developed plate is put to fix in a solution of hypo, the milky-looking silver salt (silver bromide) is dissolved by the hypo, forming a double hyposulphite of silver and soda, which is practically insoluble in plain water or weak hypo solution, and is decomposed, yielding black silver sulphite. But—and here comes the practical point which should never be forgotten—this double salt of soda and silver is freely soluble in a fairly strong solution of hypo. In other words we must have not only enough hypo to dissolve the silver bromide, but also enough hypo to dissolve the double salt so formed. Every plate or print fixed in a hypo bath uses up a certain quantity of hypo, so that if the bath is worked too long, there comes a point when there is not enough left to dissolve the double salt. Washing in water will not remove it, but will decompose it, leading to black or brown stains.

WHILE on the very important subject of the fixing bath, either for plates or prints, it may be as well to quote a few typical or standard formulæ:

1. Water, 20 ounces; hypo, 4 ounces to 6 ounces.

2. Water, 20 ounces; soda carbonate, 20 grains; soda sulphite, ¼ ounce; hypo, 5 ounces.

3. Water, 20 ounces; hypo, 4 ounces, potassium metabisulphite, ½ ounce.

4. (A) Water, 10 ounces; hypo, 4 ounces. (B) Water, 10 ounces; soda sulphite, ¾ ounce; sulphuric acid, 20 minims (or tartaric acid, ½ ounce; or acetic acid, ¼ ounce).

5. (A) Water, 10 ounces; hypo, 4 ounces. (B) Water 10 ounces; soda sulphite, ¾ ounce; sulphuric acid, 20 minims; chrome alum, 2 drams. Prepare A and B separately, and add B to A.

No 1 is the normal plain hypo; 2 is an alkaline bath; 3 a very general favorite; all three forms of 4 are well supported; No. 5 is an acid fixing and hardening bath.

TAKE, by way of examples, the very commonplace, yet practical, topics of bottles, corks, and stoppers. What is the quickest way to dry the inside of a narrow-necked bottle that has been washed out with water? First, be it noted that if warm water be used this helps matters to begin with. Next, stand the bottle mouth down on a bit of blotting paper. Meanwhile borrow the kitchen bellows, and make the long iron nozzle rather hotter than the hand can bear to touch. The bottle is now laid on its side, and a long stalked, clean glass funnel inserted. This should be small compared with the neck opening. Then a steady stream of hot air is blown into the bottle from the hot nozzle of the bellows down the funnel, which finds its way out of the bottle between the funnel stalk and bottle neck.

PROBABLY the leading factor tempting the worker towards under-exposure is the unconscious ignoring of the darker parts of the picture, and so judging the subject by its lighter parts. The fact that a light rather than a shade attracts the eye is perhaps a general explanation, but another factor is the half unconscious fear either that the object may move, or the camera cannot be held quite still for a longer exposure. Perhaps the most useful things for the worker generally, and hand-camera men especially, to bear in mind are that the final picture will be very much larger than it appears on the finder, that dark objects small enough to be ignored on the finder often cannot be ignored in the final picture, and that for a satisfactory result the exposure must be long enough to secure the required degree of detail or gradation on the nearest dark object of essential importance to the picture. It may be generally helpful to have a few fairly typical exposures that one can carry in one's mind. Suppose the month to be April. Hour, 10 a. m. to 2 p. m. Weather fine and bright. Lens stop *f*8. Plate speed 200. H. and D.

Watkin 295, Wynne 110. Panorama, distant landscape only. Sea and clouds 1-300 sec. Open landscape or very light foreground 1-150 sec. Foreground landscape. Figures in the mid-distance, cattle, etc., 1-75 sec. Foreground figure groups, well lighted, 1-35—1-20 sec. Glades, plantations, lanes, open woodland, 1-10 sec. Streets, well lighted, 1-20 sec. Double these exposures for cloudy or dull weather. If the hour be eight to ten a. m. or two to four p. m., double the above exposures. Classify the subject by its nearest or darkest portion. Seashore subjects require about half the exposure that the same subject inland would require.

IT MAY be opportune to remind those readers who have not been using the camera for outdoor work lately that one's mind, memory, and judgment of correct exposure is very apt to get rusty, and that certain factors of importance are easily overlooked. Of course, if some form of actinometer (or light-activity measurer) be used, we are helped a good long way towards our conclusions; but even in that case one has to use some judgment as to subject, contrast effect present and required in the negative, prevailing color of the subject, and so forth. While for those who prefer the tabular system—and there is much to be said on both sides—personal judgment again plays no unimportant part. Perhaps the chief warning should be given to hand-camera users, who so often err on the side of under rather than over exposure.

HIS MOTHER'S AMBITION FOR HIM

BY HENRIETTA FLINT SIMMERMAN.



A WOMAN who supported herself and small son by photography was asked by a friend if she expected to make a photographer of the lad. This was the reply:

"Don't think for a minute that I am planning to make a picture man of my boy. I want something for him that will be all *highlights* and no *shadows,* where he can be himself without *posing,* something of course that will *develop* all his *latent* faculties and bring out many fine *details* of character. I trust that his virtues will be more *positive* than *negative,* that he will not need very much *toning* down, will have no faults to *expose* or blemishes to *retouch,* that the *proofs* of his uprightness may be always acceptable, his position be *fixed* and when pay day comes may he have a goodly sum to show for his labors."

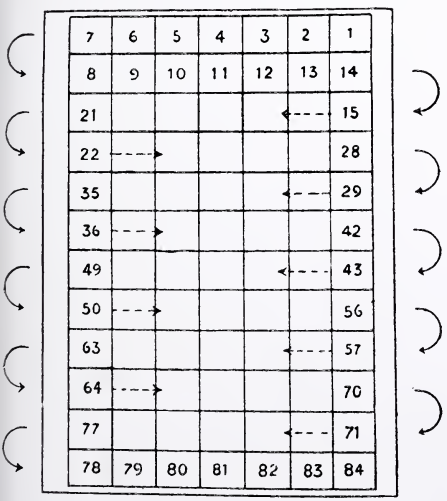
Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

A NEW PLATE MOTION PICTURE CAMERA.

A motion picture camera is described in "Cine-Journal," 1912, called "L'Olikos," which uses glass plates instead of films, making it simpler and more attractive for the amateur.

While the use of plates is not new, there were several drawbacks connected with the apparatus heretofore designed, for instance, using round plates 30 c.m. (12 inches) in diameter. "L'Olikos" uses standard size plates, 65 x 90 mm. (about 2½ x 3⅓ inches), which are easily obtained. The little pictures are made in rows according to the annexed diagram.



After the first row 1-7 is exposed the plate is raised to the height of a picture and the next row exposed, but now from left to right. On each plate are 84 single pictures, each measuring 7 x 8 mm. (5/16 x 9/32 inch). When 12 rows have been exposed the plate is automatically removed and another takes its place, all this without interrupting the series of exposures. In this way 18 plates are exposed, making in all 1,512 single pictures. This set requires about one and one-half minutes for projection (exhibition). In its outer form and size the apparatus very much resembles the usual motion picture camera for normal films. From the negatives, after the usual development, the positive (slides) are made.

The positives are placed in the taking apparatus and in connection with a suitable lamp, are projected. The screen should be about 4 meters (about 13 feet) from the apparatus. This will give pictures about 1.20 meters (about 4 feet) on the long side.

If the apparatus works as claimed, it makes a considerable step forward in motion picture work, especially for the amateur.

—*Photographische Industrie,* No. 8, 1912.

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AN IMPROVED SILVER-PIGMENT PROCESS, BY J. STOOP.

The author has attempted to better adapt the silver-pigment process, also called ozotype and ozobrom, to prints of different contrasts and intensity and to make the application of this printing system more universal. For the best results only first-class bromide paper with a smooth matte surface should be used, gaslight papers are not so well adapted. The prints should be clear and fully developed and show all details by transmitted light.

The color of the image should not be greenish or reddish, but blue-black. The latter color is most easily obtained with iron (ferrous oxalate) or amidol developers. If iron is used the prints must be well washed to prevent blue stains when the print is placed in the solution containing the ferricyanide. The bromide print should be provided with a soft safety edge.

For bleaching the following separate solutions should be made:

A	Potassium dichromate	8%
B	Potassium ferricyanide	8%
C	Potassium bromide	12%
D	Alum	4%
E	Citric acid	10%

For a normal print the bath should have the following composition:

A	15 c.c.	½ oz.
B	80 c.c.	2⅔ ozs.
C	80 c.c.	2⅔ ozs.
D	60 c.c.	2 ozs.
E	10 c.c.	⅓ oz.

The bath should have a temperature from 16°—20° C. (60.8°—68° F.) and the pigment paper placed in it for two minutes.

As soon as the paper has flattened out the surface should be gone over with a tuft of cotton to prevent air bells from adhering. The solution should be used only once, that is a fresh bath for every print. Pigment paper prepared as above should be squeegeed in contact with the bromide paper, which will take some practice to do neatly. To bring the two together, the bromide print is drained for a moment and then spread out on a sheet of glass. The pigment paper is also drained for a moment, then held at two diagonal corners as parallel and close over the bromide print as possible, one corner is then allowed to come in contact with the bromide paper. The pigment paper is then gradually lowered until entirely in contact. Great care must be taken not to shift the pigment paper while bringing it down on the bromide print as otherwise a blurred image will result, spoiling the picture.

After the papers are in contact a sheet of rubber cloth is spread on them and a squeegee passed over. All air bells must be eliminated. To follow the progress of the 'printing" a corner of the paper may be carefully lifted. In order to easily remove the bromide print from the pigment paper the latter should be kept inside the white safety edge. The object of the safety edge is to prevent damaging the margins of the pigment print while developing.

After the bromide print is fully bleached the pigment image may be developed on the bromide print, or it may be transferred and then developed. The development is carried out as in the usual pigment (carbon) process, only it is necessary to note the temperature of the water, which for the above bleaching bath should be 37° C. (98.6° F.). By varying the composition of the bleaching bath and the temperature of development, a considerable difference in the resulting pigment print may be obtained. If the pigment image is developed on the bromide print it will be necessary to place the print after development, in a fixing bath, after first hardening with alum and a short washing. This prevents the picture from darkening in the light.

After this the print requires only washing and drying, which finishes it. If the transfer method is used the print requires only an alum treatment, washing and drying.—*Photographische Rundschau,* Vol. 25, No. 17.

—*Atelier des Photographen.* 1911.

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CLEANING GLASS BOTTLES, BY AMMANN.

Photography being largely a chemical process, a greater or lesser number of bottles are constantly in use. An intelligent method of cleaning them or those we intend to use for our work, is of considerable value. According to the *Photo Wochenblatt,* if the contents were of a greasy or fatty nature or it was some other organic substance, it should be treated with benzine or potassium permanganate and hydrochloric acid. If, however, the substance was neither oily nor resinous, the cleaning may be done as follows: A mixture of water and hydrofluoric acid is put in the bottle, which is then well shaken. If no hydrofluoric acid is at hand, a knife point of sodium fluoride is placed in the bottle and some water added and finally some sulphuric acid. On shaking the bottle well for some minutes it will be found quite clean.

—*Apollo,* Vol. 16, No. 351.

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FOR "PYRO" STAINED FINGERS.

One may develop hundreds of plates without getting even a trace of the ugly stains on the fingers if the following is observed. Never place dry fingers into the solution but rinse the hand under running water first; also do the same after removing the hand

from the solution. When the plates have been placed in the fixing bath dip the fingers into a 2% solution of hydrochloric acid, which should be at hand ready for use.

In place of the hydrochloric acid, sulphuric acid, a few drops in water, or lemon juice. In fact half a lemon is very good for removing the stains.

—*Apollo,* Vol. 17, No. 387.

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PYROCATECHIN TANK DEVELOPER, BY J. CANUBA.

The author claims that this developer is superior to all others, even glycin. According to the Spanish publication *La Photografia,* the developer has the following composition·

English.		Metric.
60 ozs.	Distilled water	1800 c.c.
1⅓ oz.	Sodium sulphite cryst. 40% sol.	40. c.c.
1 oz., 75 grs.	Sodium carbonate	35.0 gms.
105 grains	Pyrocatechin	7.0 gms.

The solution requires no bromide or other retarder. The negatives are very clear and transparent. Plates exposed 1/100 seconds take from 15-20 minutes to develop, 1/1000 seconds 50-60 minutes. The solution can be used for some time. It does not easily discolor. Even when rather old, no staining of the film takes place.

—*Photographisches Wochenblatt,* Vol. 38, No. 9. —*Photo-Revue,* Feb., 1912.

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TO PREVENT SPILLING LIQUIDS WHEN POURING FROM BOTTLES.

In the majority of bottles the lips are usually flat. This makes it difficult to pour a liquid straight and without spilling or running down the side of the bottle. To correct this the following is recommended:

A trace of vaseline is smeared around the lips of the bottle, for warm liquids or for more permanent results paraffine or wax should be used. This causes the cohesion to overcome the adhesion and the liquid does not run down the side of the bottle as so often happens.—*Apollo,* Vol. 17, No. 387.

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A NOVEL ADVERTISING SCHEME.

A circular with the following story was recently distributed in Hamburg, Germany.

Two gentlemen from the Mississippi who were neighbors and between whom existed a feud of long standing, accidentally met in Hamburg. Each happened to start at about the same time on a business and pleasure trip to Europe. Old hostilities were renewed, which finally ended in a challenge for a duel. The gentlemen agreed to settle their differences in the following manner:

Each was to ascend a high fir tree and throw dynamite at each other until nothing of the men or the trees remained. The duel took place and after it was over nothing was left except a cabinet photo and a postcard made in the atelier of Adolf Stolle. This was a proof of the good quality and permanency of the photographic work done at the studio. After this followed a regular advertisement of the various sizes of pictures and their prices.

—*Photographische Chronik,* No. 86.



Discoveries

[All readers of The Photographic Times are invited to contribute to this Department reports of their Discoveries for which we will allow One Year's Subscription, on publication of the contribution.—The Editors.]

TO MAKE A LONG BELLOWS CAMERA OUT OF A SHORT ONE.

Those who have short bellows cameras may convert them into long bellows by making an extension to the back of the camera. I wanted to do some copying and found the bellows too short to get a large image. Also for distant objects the short bellows camera is not suited. By making an addition to the back of the camera you may use one combination of the lens by unscrewing the front combination and using the back alone, and thereby drawing the image much closer. This addition suits those who do not have a long bellows and want to do copying at home occasionally. I do not advise buying a short bellow camera, but if you have one this will help you out. Procure a piece of board about six inches wide for a 5 x 7 camera. The board need be only ⅜ inch thick. Out of this make a box minus top and bottom. Make this the exact size of the plate holder, for it is to fit in the same place. This must be made light-tight and painted inside a dull black. Around one end fasten thin strips to hold plate holder in place just the same as back of camera, where the plate holder slides in. This is very simple and does not take much work. Unhook camera back and put box in place, first having screwed two pieces of wire with hook bent at each end. Fasten one end of wire to spring catch at camera and the other end to catch at camera back. This holds the box in place, between camera and back, and you insert the plate holder. You do not need to have fasteners of any kind on the extension. It is used precisely the same as a plate holder. The wire hooks serve to lengthen the spring catches on the camera back, and hold the box tight with the plate holder. The ground glass being at the back of the box, the focussing is done in the usual way. J. J. Harman.

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In your April issue you sound a timely warning against our "friend and enemy," the darkroom lamp. Instead of turning my back to the lamp, however, I have found it more expedient to turn the back of the lamp to me. Placed on a low box near the front edge of the work bench, but facing diagonally to the wall opposite the worker, its most direct rays are from a point higher than the trays on the bench; still all the light needful is secured. The developing tray, placed alongside the box always remains in shadow.

A piece of stiff paper bent in a half-circle and tied across with string, is set around the base of the lamp to screen any rays of white light from the draught openings in the sides. The clock is also placed on the box facing the lamp. In photographing wild animals in captivity I have been using the fastest color sensitive plates procurable, but I have had no trouble from fog.

(Miss) C. M. Green.

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STOPPER EXTRACTOR.

I had been greatly troubled by the breaking of cork stoppers in bottles containing my photographic solutions, usually being obliged to force the greater part of the stopper *into* the bottle. Finally I hit upon a sure and easy method of extracting the most stubborn captivated stopper that ever fell into a bottle. Take a short piece of *stout* copper wire and bend one end into the shape of a fish-hook. Slip this end into the bottle and tip it on end so that the cork falls to the mouth. A steady pull on the wire will force the stopper out very easily. Try it. H. W. Lawton.

A NEW SYSTEM OF COLOR PHOTOGRAPHY, BY SAMUEL WEIN.

The Westinghouse Electric and Mfg. Co., East Pittsburgh, will make a final test of a discovery of color photography which transcends all methods now in use owing to their costliness and inability to produce all colors. The process accidentally discovered at the Westinghouse plant, it is said, is as simple as ordinary photography. No special prepared plates or screens are used.

The original discovery, almost ten years ago, was made by an official photographer through a blunder. He was photographing a painted casting and somehow in the process allowed an electric lamp to interfere. On development he found the natural colors. The phenomenon startled him. Remembering the accident he allowed it again to occur in another picture. A like result was obtained. Other experiments were made, and in each case a transitory photograph in natural colors was obtained with no added cost or special work.

But for months, despite constant work in the laboratorary, it said, the fixing of the pictures could not be obtained. Last month, it is said, this indispensible branch was perfected by a peculiar sensitizing of the plates.

The name of the photographer who accidentally discovered the process is said to be Mr. C. A. Kulmuth, though the company will not admit this fact at present. Much secrecy is being maintained by the Westinghouse officials, and it is said a patent on the process will be obtained if exhaustive tests prove satisfactory.

By the new method ordinary plates and equipment are used. The reproduction of colors, it is said, lies merely in the intensity and quality of a light used at the moment of exposure.

For the last twenty years color photography has made slow, if any, advancement. Recent development of the diopticrome and the autochrome screen processes have done much for the art, but these methods are costly. The greatest hope of experts has been for the discovery of a process which, even if not simple and direct, is simple enough to be eminently practical and free from the characteristic limitations of the screen process.

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HELPS IN PRINTING.

When printing postcards from smaller negatives than 5 x 7 I use my 5 x 7 printing frame, first inserting a piece of clear 5 x 7 glass, (which is only a poor negative cleaned off), then put down the mask, and on this the small negative, be it 4 x 5, 3¼ x 5, ½ or 3¼ x 4¼, and over this carefully place the sensitized postcard, being fastidious to have it in the center of mask. It always seems easier to me to use my 5 x 7 printing frame for a smaller negative; of course, with the clear 5 x 7 glass. And I have found it is easier and less likely to slip if the mask is put between the clear glass and the small negative.

C. C. RUTTER.

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My prints are all from film negatives and I leave one-eighth of an inch white margin on each. Have read numerous descriptions of masks, but think I have one of the easiest to manipulate, using gaslight papers.

Cut two pieces of thin cardboard exact size of the opening in printing frame. In center of No. 1 cut a rectangular opening one-quarter inch smaller each way than the paper used. In center of No. 2 cut an opening the same size as the printing paper. Now place No. 2 on No. 1 and paste them together. Take piece cut out of No. 2 and lay in opening and paste strip of cloth along one edge, joining it to mask, the same as a door is hinged in its frame. In fact it was from a door frame that I got my idea.

In printing open the hinged back and insert paper; close and lay over negative in printing frame. The cardboard "door" back of paper serves to distribute pressure of frame back and hold paper flat.

A strip of black paper placed under mask will cut off any undesirable part of negative and leave desired margin while using only the one size of mask. I find this adds a pleasing variety of sizes where prints are mounted in an album, besides improving composition of individual prints.

FRANK A. RICE.

Among the Camera Clubs

[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—The Editors.]

The wind-up lecture of the season at the Royal Photographic Society was one of exceptional interest, but space only permits a compressed extract of such points as appear to have a practical application. The authors (Messrs. Welborne Piper and Kenneth Mees) dealt with the fogging power of developers in general and hydrokinone of quinol in particular. It seems that our old and trusted friend, soda sulphite, is a terrible fog producer, and what is more, sulphite is not essential for a non-staining developer. Then again another old idea has to be cast overboard, viz., that hydrokinone always gives a hard contrastful negative. But it seems that if the proportion of hydrokinone be high enough and that of alkali be low enough, no harsh contrasts follow even with prolonged development. Then again most people have tacitly assumed that the more alkali the more fog, whereas it seems that the quantity of fog has little or nothing to do with the quantity of alkali. Of course, most people now know that the restraining action of bromide in a developer, whatever it be, does not continue beyond a certain time. That is to say, if we cut a plate in half and develop one-half with bromide and the other half without bromide in the developer and then develop both plates as far as they will go, they will yield precisely similar prints, but if we do not carry development to the "Ultima Thule," then there may and probably will be a difference. Another curious point is that a developer containing hydrokinone and caustic soda only, will give a fogless and stainless negative. As to quantities a developer containing 5 per cent. of hydrokinone and ½ per cent. caustic soda was mentioned. These are all very interesting and suggestive points, and it now remains for the practical man to see if he can bring this practice into line with the foregoing. The authors do not put forward this paper as a practical one, but are chiefly concerned with the experimental and theoretical aspect of the matter.

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SIXTH ANNUAL EXHIBITION OF THE LENS AND BRUSH CLUB, NORTHAMPTON, MASS.

Forms have been sent out for the Sixth Annual Exhibition of the Lens and Brush Club, Northampton, Mass., which will be held in the Y. M. C. A. Building, King street, Northampton, Mass., from June 3rd to 8th inclusive, 1912.

Rules.—Exhibits must be delivered, carriage paid, to the Secretary, Y. M. C. A. Building, King street, Northampton, Mass., on or before the 17th of May, 1912, and the attached entry form, properly filled out, must be mailed separately to reach him before that date.

Exhibits from points outside the United States must be sent by post.

No fee is charged for entrance.

Pictures must be mounted, but may be framed if desired. Each must bear, on the back, the title, the exhibitor's name and address, and club, if any, to which he or she belongs.

All work, including mounting, must be the *bona fide* production of the exhibitor.

Judging.—Those pictures having decided merit, originality in idea and treatment will be selected by the Jury of Award.

The Jury of Award will consist of three competent and disinterested persons. Their decision shall be final.

All entries shall pass before the Jury, who, however, reserve the right to make a selection of the best work.

Certificates.—For the ten prints that the Jury consider most worthy of honorable mention, Certificates will be issued.

Due care will be taken of all exhibits, but the club cannot assume any responsibility for loss of or damage to them.

Exhibits will be returned as soon as possible after the exhibition, provided a sufficient amount is enclosed to cover return postage.

No picture which has been accepted in any previous competition of the club will be eligible.

Additional entry forms will be mailed on request.

* * *

The London Salon of Photography will hold its international exhibition at the galleries of the Royal Society of Painters in Water Colors, 5a Pall Mall, East, London, from the 7th of September to the 19th of October, 1912, inclusive. The entries are open and blanks may be obtained by addressing THE PHOTOGRAPHIC TIMES. Entries are closed August 21st, 1912.

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The prospectus of the Royal Photographic Society is now to hand, whence one learns that the next exhibition will be held September 2—21, in the galleries of the Royal Society of British Artists, Suffolk street, Pall Mall. There are to be two main divisions: (1) Pictorial photographs; (2) scientific and technical, natural history, color prints and transparencies, lantern and stereoscopic slides, general photographs of technical merit. Exhibits delivered by hand, last date, August 10; by carrier, last date August 9. An entrance fee of 1s for each print, or four slides or transparencies, minimum 2s. Any excess over this minimum will be refunded in respect of contributions not accepted. Applications for entry forms, copy of prospectus, or other information should be made to the secretary of the society, 35 Russell square, London, W. C.

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ELYSIAN CAMERA CLUB TO OBSERVE BIRTHDAY.

It will soon be ten years old and will fittingly celebrate the event.

In the spring a young man's fancy lightly turns to thoughts of amateur photography, which no doubt accounts for the birth of the Elysian Camera Club, of Hoboken, at this season of the year a decade ago. To be exact, it happened on the 21st of April, 1902, and the members of this very live and active organization intend to celebrate its tenth anniversary in a manner befitting its splendid history.

As a result of this desire the atmosphere at the clubrooms, 307 Washington street, is charged with the enthusiasm and energy of the amateur camera artists, and the members are untiring in their efforts to make the celebration one that will be indelibly stamped as a series of happy days in the minds of all of the participants. The celebration is to last for eight days, beginning Sunday next, April 21, and continuing until the following Sunday.

On Sunday and Monday there will be an exhibition of prints at the clubrooms. Tuesday evening there will be a smoker and an exhibition of lantern slides. Wednesday night will be devoted to the fair sex, a "ladies' night," having been arranged for that evening. Thursday night there will be lantern slides and an exhibition of prints, and the remaining days of the celebration will be devoted to an exhibition of prints to which the general public is cordially invited.

The club's library contains many important works on photography, besides bound volumes of the leading magazines on amateur photography, while the reading-room table is strewn with current copies of the leading magazines in this field.

The historical section is a very important department of the club, its objects being to collect a pictorial record or views of Hoboken and vicinity and to give public exhibits of them at least once a year. Among the members of this department are the following well-known Hobokenites: Mrs. C. B. Alexander, Miss Eleanor B. Allen, Archibald S. Alexander, C. Alfred Burhorn, eRv. H. T. Beatty, Palmer Campbell, Mayor Martin Cooke, Professor J. H. Cuntz, Captain B. Franklin Hart, E. H. Horwood, former Mayor Adolph Lankering, Recorder J. J. McGovern, Edward W. Martin, Supreme Court Justice James F. Minturn, Adolph Matthiessen, Henry S. Morton, John F. O'Hara, Colonel E. A. Stevens, Arthur Seitz, former Mayor George H. Steil, A. J. Volk, and many others.

The present officers of the club are: President, Conrad Peterson; vice-president, Richard Thiessen; treasurer, Julius Nelson; secretary, Charles Westerburg; financial secretary, George Sting; librarian, Gustave Petersen.

The club will keep open house during celebration week and the public is cordially invited to visit the rooms and see the prints on exhibition. All amateur photographers not attached to any club should take this opportunity to pay the club a visit. They will find a large airy darkroom, and priting room with all accessories; lockers for the convenience of the members; trays, graduates, wash tanks, printing frames, drying racks, and in fact, all the things necessary for the production of pictures by almost any process. An enlarging room, equipped with apparatus for the making of lantern slides, enlargements, etc. Entertainment is provided for members and friends in the shape of exhibitions, lantern slides, lectures, demonstrations, and outings to points of interest.

The club competitions are given quarterly for prizes and are exhibited on the walls of the club. The amateur photographer can get lots of entertainment by working alone, but he must rub up and exchange ideas with others if he desires to grow and expand in the art.

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ILLINOIS COLLEGE OF PHOTOGRAPHY, EFFINGHAM, ILL.

The college has just received a call for an all-round engraver from the government of Venezuela, S. Am. One of the students expects to take the position in a couple of weeks. The consul at New York has guaranteed all traveling expenses for the trip in addition to the salary. This will give the engraving college representatives in six of the Spanish-American countries. Venezuela, Mexico, Cuba, Guatemala, Panama and Ecuador. Incidentally, our representative student in Ecuador, Mr. Juan Amat, writes us that he and his political party have been revolutionized and he will retire from the engraving business in that country until the next revolution.

The prizes in the monthly photo contest at the college of photography were won by Messrs. Kurano, Pace, Nieholoff, Young and Sabin.

The Tennis Club have put their grounds in excellent shape. New back stops have been erected and the grounds have been rolled to perfect smoothness, and some hot matches are pulled off every evening.

Mr. Chas. E. Scott, engraver of 1910, who recently returned to the college for review work, has taken a position with Mr. Carl Thompson, student of 1905, who has an engraving plant at Omaha.

Mr. Gustav Hauschild has gone to work for the Gray Printing and Engraving Co., of Fostoria, Ohio. Mr. Gordon Gray was a student in 1905.

The National Good Roads Bill for an Ocean to Ocean highway has passed Congress and the route will follow the Old National Roard passing through Effingham, from New York City to Los Angeles, Cal.

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At the annual May meeting of the Boston Young Men's Christian Union Camera Club the following officers were elected for the following year:

Dr. H. D. Hutchins, president; Arthur Hammond, vice-president, H. C. Channen, treasurer; M. L. Vincent, secretary.

Preceding the business meeting the S. J. Frye Film Exchange gave a complimentary motion picture exhibit with the Edison Home Kinetoscope, which was most enjoyable and instructive.



Items of Interest

COLOR PHOTOGRAPHY IMPROVING.

Color photography is to become a possibility for amateurs in the near future—according to announcement from Paris. It is declared that recent inventions by scientists who have made a close study of the subject leave little doubt that the time rapidly is approaching when this form of photography will be as common as the ordinary form is now.

The main objection to color photography previously has been that the only pictures obtainable have been on glass. Prints on paper could not be made by the so-called "new autochrome process" invented four years ago.

While the results are said to have been splendid in every way, the fact that glass pictures were the only ones obtainable served to discourage amateurs who might have inclined toward taking up the new idea.

Recently, a new printing paper called "utocolor" was invented. This is placed on an autochrome, or similar colored plate, in the printing frame and it is printed in the sun for about two hours or longer in the shade, just as is an ordinary paper. Describing the process, a writer says:

"The paper acquires the colors of the plate and it is very interesting to watch how the colors develop on the black surface of the paper direct in the printing frame without the application of any solutions or developing agents. When the print corresponds completely with the original, it is taken out of the frame and the dyes employed are fixed to render them permanent."

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A SIMPLE LITTLE EXPERIMENT.

A simple little experiment shown as a lantern slide by Mr. Freshwater, recently, gives a very good hint to teachers generally. Everyone knows — from books — that a floating iceberg has, roughly, only about one-ninth part of its volume visible above water, but one does not easily realize what this means. Mr. Freshwater took a block of ice about the shape and size of a lemon, placed this in a tumbler of water, and then photographed the entire arrangement showing the ice above and below the water level. One might suggest an appendix to this experiment—viz., a second precisely similar tumbler, but containing a strong solution of sea salt, and the same block of ice shown therein. This would help us to realize that the denser the water the more ice would stand out above water level.

ENLARGING METHOD.

Although the general prevalence of the small camera negative and its subsequent direct enlargement on to bromide paper is a note of the times, yet there are still among us a goodly number who with no little wisdom prefer carbon and platinotype for their final results. For these processes one requires a large negative for contact printing. Hence the timely and excellent practical demonstration by Mr. A. D. Godbold at the London Camera Club on the art and practice of making enlarged negatives. Commencing with a small negative (whose longer side was only about a couple of inches), a positive on a slow contact lantern plate was made by contact. This transparency was fixed up in a makeshift holder. About ½ inch from this was a quarter-plate piece of finely ground glass. An electric filament lamp provided the source of light. An old-fashioned long-extension, whole-plate camera was supported on a couple of books, and an ordinary 6 inch (f. 16) lens employed, with an ordinary Imperial plate. An exposure of 20 seconds proved fairly satisfactory. Under these conditions an enlargement of about two diameters resulted.

Photographic Reviews

The Imperial Handbook is a yearly publication which always contains a good store of thoroughly practical and up-to-date information, condensed into few words and simple language. The 1912 issue, just to hand, is a worthy number of the series. The dozen or so different brands of plates are duly annotated, with hints, which should enable the worker to select just the quality he requires. A six-page article on improving faulty negatives is aptly illustrated by a series of fourteen reproductions, showing the appearance of various negatives and their corresponding prints before and after intensification and reduction. In this way the inexperienced worker can learn to connect in his mind the character of weak or strong contrast negatives with their corresponding printing effects and results. Two methods of intensification are given, viz., mercury followed by ammonia for strong effects, alkaline developer for medium effects, and soda sulphite for soft effects. As an alternatice, the bichromate bleaching bath and redevelopment process is given.

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"Self-help in Photography" is the title of a little (gratis) pamphlet by Messrs. Burorughs, Wellcome, and Co., in which is given a sheaf of useful hints as to how one may make the best use of their tabloid preparations, and also numerous useful hints on various topics of interest to the photographer. For example, on one page we see at a glance how long we should develop when using Rytol or Metol Quinol at 45 deg., 50 deg., 55 deg., and so on up to 75 deg. F. Whether we use tabloid developers or not, such a table will be of considerable help as affording relative times at different temperatures when using other developers having characters reasonably comparable with those given in the table. Another useful item is a small film negative showing the effect of the tabloid chromium intensifier.

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"The Battle of Baseball, by C. H. Claudy. New York, the Century Company.

Our contributor, C. H. Claudy, has written a book which will certainly be appreciated by every American boy, and by the entire body of "fandom." The title of the book fairly describes the volume itself, which is, profusely illustrated from photographs from life. Some of the instantaneous snapshots are very remarkable, and we are sure that our readers will appreciate the skill shown by Mr. Claudy in securing them.





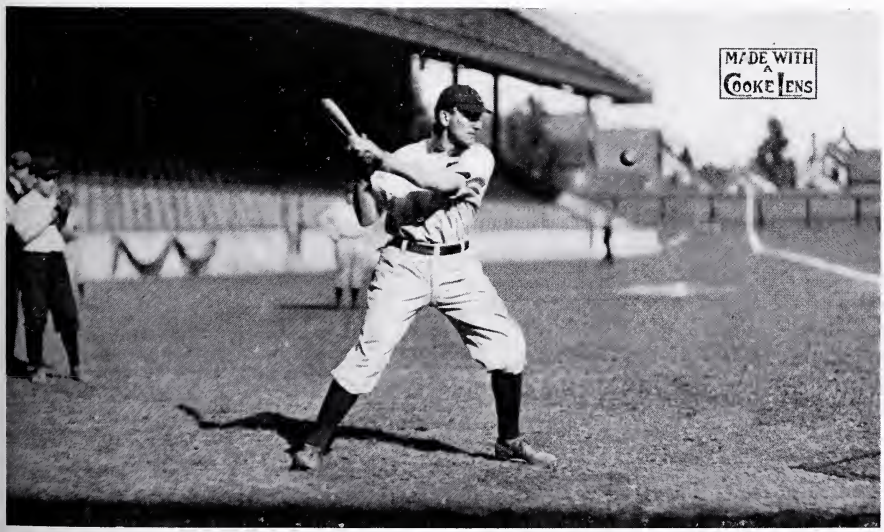
Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

We advise everyone to get a copy of "A Short Talk on Negative Making," published by the Hammer Dry Plate Co. This, the ninth edition, is carefully revised as to formulæ, price lists, etc., and contains many useful hints about the developing and handling of plates. We quote the following from this booklet:

Hammer Photographic Dry Plates are manufactured in fourteen distinct classes, each of which is intended to fulfil a special purpose. They are named Extra Fast, Fast, Slow, Special Extra Fast, Aurora Non-Halation (Double Coated), Commercial Orthochromatic, Orthochromatic Extra Fast, Orthochromatic Slow, Orthochromatic Double Coated, Lantern Slide, X-Ray, Photo Postal Plates, Opal and Ground Glass Transparency. All have the same characteristics, but are different in speed and special adaptability for the various kinds of work for which they are intended.

We aim to attain in the manufacture of these various classes of our plates the best that skill and modern machinery can produce, by honest and careful work, by the use in their make of only the highest grade chemicals, gelatine and glass procurable. Because of personal supervision of all of the various stages of their manufacture, these plates, in all of their classes, are very nearly perfect, and they have been characterized one of the most uniform and the best workable plates upon the market.



The above illustration is an example of several glossy velox prints made with a Cooke anastigmat lens which we have just received. The rest will appear in these pages at a later date. This is a wonderful example of the lightning speed of the Cooke anastigmat. Not only is the ball, which is as distinct as if it were standing still, traveling at great speed, but the batter is nearly under full swing, and both look as though they were placed in fixed position for a pose. This picture will appeal to the "fan" as well as to the photographer, and should insuire all who see it to try a Cooke lens.

At a public demonstration held by the Photographers Club, of Bridgeport, the Agfa Flashlight Powder proved to be the solution of the greatest drawback to the making of color plates (autochrome). Mr. Geo. L. Barrows of the Berlin Aniline Works demonstrated the making of color plates by the aid of flashlight and the new Agfa Professional Flashlamp just introduced by this company. The Mayor of Bridgeport and several well known society leaders were all successfully photographed.

The Agfa Powder overcomes the objectional smoke annoyance as well as the explosive noise, so apparent with other flashpowders, and a comparatively small amount of Agfa Powder is used, owing to the extreme amount of light produced by the Agfa Flashpowder.

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We have received an interesting folder from the Bausch & Lomb Optical Co. describing a new apparatus for the projection of large opaque objects. This unique machine called a balopticon has opened up a new realm of usefulness for the optical projection of opaque objects and illustrative material direct on a much larger scale than ever before attempted, and besides is entirely practical in operation. It can be used to project sections of mechanism such as a cash register or a typewriter, and large posters, advertisements, maps, etc., may be projected for examination and discussion.

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There are few people who can claim as long service in the photographic trade as our old friend, John Hampton. Mr. Hampton celebrates, this month, the fiftieth anniversary of his connection with the photographic business; for, in June, 1862, he started with the Scovil Mfg. Co., of Waterbury, Conn., in the photographic department of their business, then on Park Row, New York City. Mr. W. Irving Adams, father of the editor of this magazine, was then agent for the company, and manager of the New York branch. The Scovil Mfg. Co. was engaged in making copper plates for daguerreotypes.

Later, when the business became so large that a separate company was necessary, the Scovill & Adams Company was organized, and Mr. Hampton went with the new corporation. Later still, the Scovill & Adams Company united with E. & H. T. Anthony & Co., forming the Anthony & Scovill Company; which, in turn, became the Ansco Company.

About this time THE PHOTOGRAPHIC TIMES which was established by the old Scovill Mfg. Company, became an independent publication, and was published by The Photographic Times Publishing Association. Mr. Hampton followed THE PHOTOGRAPHIC TIMES, and identified himself with the printing house which acquired the controlling interest in The Photographic Times Publishing Association. Mr. Hampton very well recalls the time when THE PHOTOGRAPHIC TIMES was established, and remembers many of the well known and prominent men who have been connected with it as editors and contributors.

We extend to Mr. Hampton our best wishes and congratulations on this, his Jubilee Anniversary, and we sincerely hope he will be spared to celebrate many more anniversaries in the future.

⁂

The Eastman Kodak Company certainly issue fine specimens of the printer's art. Three unusually fine examples of their booklets have just come to our editorial table,—one describing Kodaks and Kodak supplies, with illustrations of the apparatus and prices; another descriptive of the Premo Cameras; and a third devoted to Hawkeye Cameras and supplies. Each booklet contains a handsome cover, in color, from an actual photograph. Any one or all of the books may be obtained by addressing the Eastman Kodak Company, or applying at any of its various branches.

WANTED.—Snappy, "human interest" photographs for newspaper reproduction; unusual pictures of children and animals; unique seashore bathing scenes; exceptionally beautiful girls and women; "foolish season" photographs, with laughable or surprising touch; photographs specially suitable for any general American holiday. Prints must be clear and contrasty. Glossy, unmounted, black-and-whites preferred. We pay $2.00 to $5.00, depending on interest. Send stamps for return if not found available. NEWSPAPER ENTERPRISE ASSOCIATION, 102 N. Fifth Ave., Chicago, Ill.

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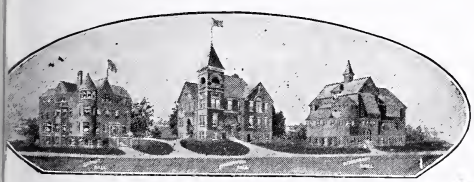
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IN TRAINING.

I told the readers of this magazine last month of my resolutions for the coming season, and I am not ashamed to tell of some of the mistakes I have made and some of the things I have accomplished since I have been in training. If you read these pages last month, you will remember of my experience with a friend who seemed to have been able to get all the pleasure there was to be had out of photography, while I merely skimmed the surface. It was his album of Kodak pictures that made me sit up and take notice of the good things I had been missing and set me to work with a purpose in view. I am going to get the good things this year for my album.

I have found as much pleasure in making enlargements from some of my good negatives that are two or three years old, as I did in printing from them when they were first made. I bought a Brownie Enlarging Camera and the Illuminator to use with it, and have found good use for both of them.

My first attempts at enlarging were made with the enlarging camera and the results were fine. The Illuminator enables me to do the work evenings, and the light always being the same, I can duplicate my results, as I have marked the time necessary for making the enlargement on the margin of the negative. The apparatus is so simple and well known that it is not necessary to speak of it here, but I would advise anyone using an enlarging camera to always make test exposures.

I didn't think it necessary until I had lost a couple of sheets of 8 x 10 bromide paper, which would have made sixteen test strips, each one inch wide. I use two test strips when I am not sure of the exposure the first time, and my enlargements have been perfect. I have used smooth Royal Bromide for most of the work I have done so far, because I like the effect of this paper for the brown prints, but some of the black prints have looked so well on the creamy tinted stock of this paper that I have not re-developed them. Oh, I am getting to be an expert alright and I am surely getting results.

I had so many compliments on my work with the enlarging camera that I gave most all of the first lot of prints to my friends, but now that I am getting more accustomed to the flattery, I find I am better able to hold on to the prints. I advise them to buy an enlarging camera, and make their own prints.

Now for my latest adventure. The course I took in manual training last winter has come in very handy, as I have been able to make an enlarging apparatus for sizes larger than 8 x 10, using my Kodak next to the Illuminator and an easel on a track. The results have been more than satisfactory, though I have not tried making enlargements larger than 11 x 14 inches.

The Illuminator, as you probably know, is much the shape of an oblong hat box that has been cut in two in the center. The top, bottom and end are flat surfaces, the sides being a curved surface, which is white on the inside to reflect all the light from the one hundred candle power lamp which is enclosed in the box.

The flashed opal glass which diffuses the light seems to let all the light through, but as evenly at the corners as in the center, so that when the film negative is placed in a frame and fitted in front of this glass, the light passing through the negative is as strong at the edges as in the center, but this is not telling of my apparatus.

I built a frame which looks like an ordinary ladder, except that it is not so heavy and has only three cross pieces to hold it together. The sides are smooth to allow an easel to rest on it and slide back and forth. The easel is two by three feet, made of soft wood and supported by two triangular pieces, which

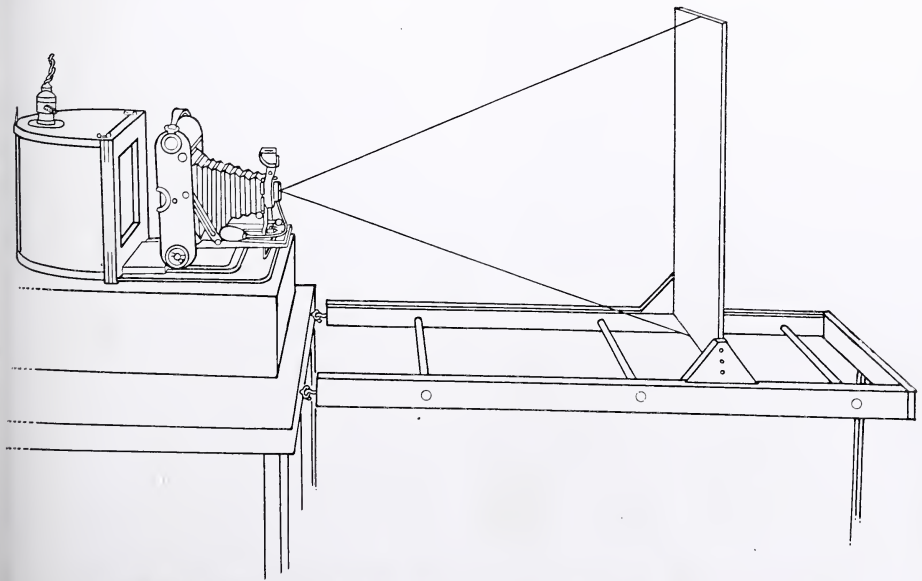
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ROCHESTER, N. Y., *The Kodak City.*

re notched at the bottom to allow them o fit over the frame of the ladder or rack on which they slide.

A leg at one end of this track, the ther end hooked to screw eyes in the able, is ample support for this part of he outfit. I then secured a box that vas large enough to hold the Illuminator nd my 3A Kodak and high enough so hat when set on the table, it would place the Kodak on a level with the enter of the easel. By cutting notches n the ends of the box and resting it on he track, one can either move the box r the easel to get the size enlargement vanted, and then focus the Kodak to et the enlargement sharp.

I find the Kodak bellows rather short, o I have to set the Kodak several nches from the negative and cover the pace between the two with a dark loth, but as I only use this apparatus or sizes larger than 8 x 10, the space is ery small. To hold the Kodak parallel with the negative, I have placed a wooden block between the Kodak and the Illuminator so the Kodak fits against the block and the block against the Illuminator and my Kodak is always parallel with the negative, and the easel parallel with both.

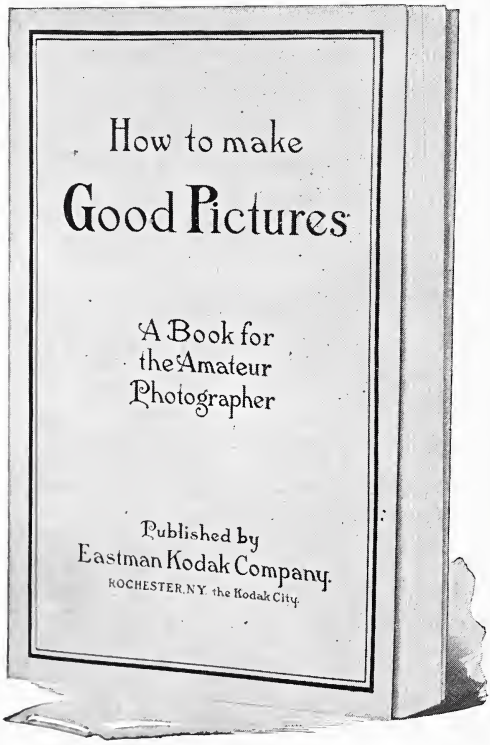
The enlarging has been so interesting that I have not had time to do much work with my Portrait Attachment, but I am going to take it with me on a hike to the woods, and I may be able to show some of my work with it soon. The Velvet Green paper is too slow for enlarging, but I have made some beautiful prints with it from some of last summer's negatives. I am going to make some negatives purposely for green prints, so my album will have variety to it, and I am going to use it for a good many of my post cards this summer, for I am going to develop my films in camp and send post cards of my own negatives to the folks at home instead of buying those colored cards, which really mean nothing to the friends who get them.



Showing Illuminator, Kodak and Easel in position as explained above.

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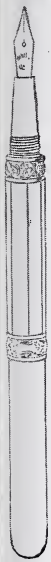
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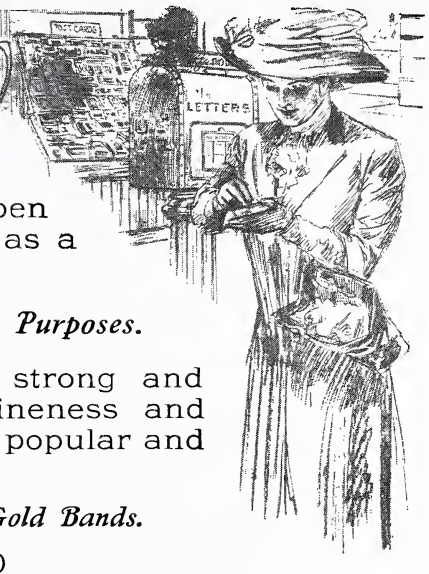
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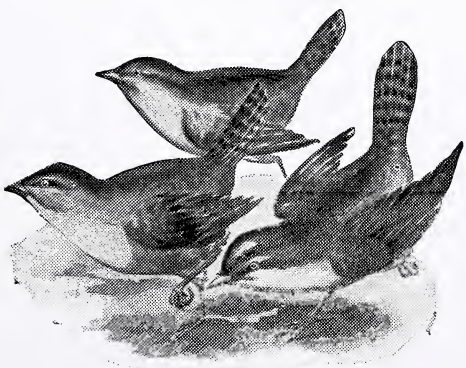
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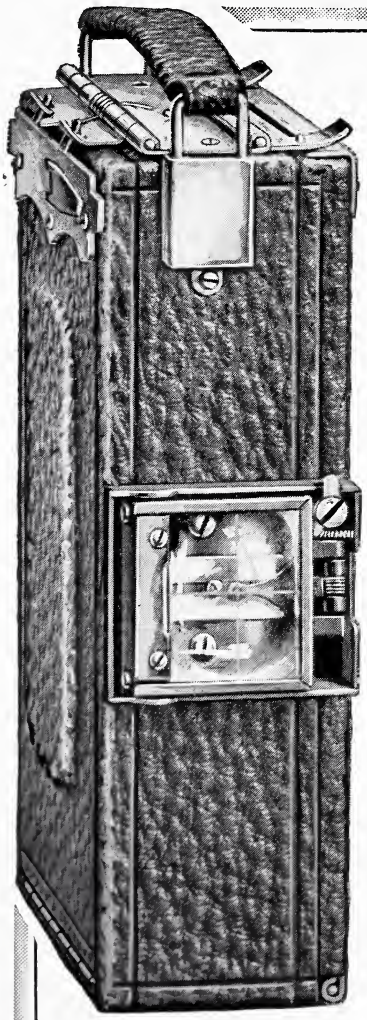
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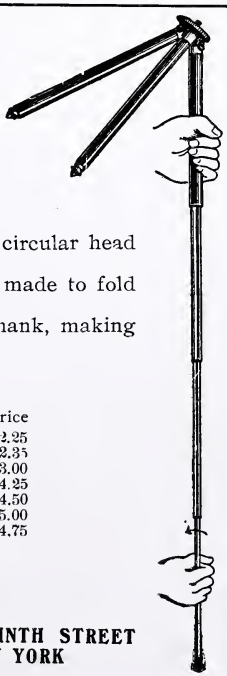
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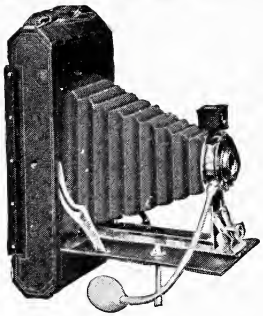
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SURF

J. R. Peterson

The Photographic Times

VOLUME XLIV JULY, 1912 NUMBER 7

PHOTOGRAPHING THE BALL FIELD

BY C. H. CLAUDY.

With Five Illustrations by the Author.



FIGHTING FOR IT (Fig. 1) *C. H. Claudy*

SEEKING after action photographs and you will go far before you come across the equal of a ball field. It may be a major league field, in which case you must photograph from the stands, or pull wires to get a permit to get on the field, or it may be an amateur playground or a "sand lot" diamond, where the only difficulty you will encounter as far as the "powers that be" are concerned is the chorus of cat calls and near-funny yells you will be subjected to. But whether the players be those of a championship club or a nine of twelve-year-olds, be sure you will find action and plenty of it, and so if you use something besides your camera in making your pictures, you will have at the end a proper reward.

The "something" you must add to your outfit when making ball pictures is partially some knowledge of the game and partially some knowledge of how best to picture the game. True, a photographer might know little of baseball and yet be told to station himself near third base and might well catch an interesting picture—or he might stand back of home plate and see some one batter out a triple and guess that if he tried to "stretch it" there might be something doing over the rubber a few seconds later which might be worth picturing. But the man who gets the interesting pictures on a ball field is usually the one who knows where to expect them, and what to expect to get—hence it can be confidently stated that the first thing to make sure of before going baseball picture hunting is that you haven't forgotten all the baseball you ever knew.

The other things you want to know about how best to picture the game, concern themselves with lenses, points of view and plates. To begin with then, you want a fast lens and a fast shutter. You can't take a picture of Ty Cobb sliding into third base an eye lash in front of the ball, and Frank Baker just getting his mit on it, with a lens working at *f*8 and Unicum shutter, particularly on a dark day at five thirty in the afternoon. Nor, even if your lens is streak lightning fast and your shutter a thousandth of a second winker, can you pro-

duce printable results on a slow plate. You want a very fast plate and a very quick shutter and very fast lens and failing any of these you might as well save your time as far as getting good pictures is concerned.

The focus of the lens is an important matter—and if you can have but one, take a long focus. It's easier to get far away from the plate than it is close to second base—neither ball players nor managers take kindly to your roosting down near the middle station waiting for some one to fall over you while you take a picture. In fact, unless it is a game played by kids too little to remove you bodily, you can't get back of second and stay there, be your powers of persuasion what they may. And as second base plays are rather rare in pictures and always interesting, they immediately loom up as those most to be desired by the photographer who would get something really worth while.

There is but one answer—a long focus lens—the longer the better, and a sufficiently elevated position to enable you to shoot over the heads of the player or umpire who will, unless you are elevated, get squarely in your way at the precise moment you try get a good picture of Milan sliding around Lajoie.

How long a focus? Oh, they don't come too long. I know one newspaper photographer who got hold of a second-hand portrait lens of thirty-two inches focus. He built an extension to his Graflex and affixed this mastodon on the end and hires a small boy to be beast-of-burden for him when he goes to the ball park. His 32-inch lens has about every lens fault a lens can have but as he uses it on a five by seven plate and as none of the players has right-lined or architecturally built legs or arms, the distortion doesn't show and the covering power of the lens is ample for the plate he uses. Result, some remarkable second base pictures taken from the second story of the grand stand.

The matter of elevation in making pictures is one to be carefully thought about—and it is to be decided after all by what you want to take. For instance, here (Fig. 1) is a picture of a runner sliding in to third base with the baseman, thrown off his balance by a juggle, crawling back to put the ball on him. It was made shortly after a rain so there is no dust and every line is sharp and clear. It was made from up in the grandstand with a long focus lens. In Fig. 2 is another third base play which is interesting from several angles. The baseman has let the ball get by him, as it came wildly from the outfield. The runner is sliding, the ball, plainly seen clear of the ground, is ten feet from the baseman, who nevertheless has not had time to recover his position. The picture was made with a ten-inch lens close to third base and with the camera held low towards the ground. Had it been made from above the ball would have been a mere blob against the ground and the dust raised by the slide would have obscured much of the otherwise excellent action of the picture.

As a general rule it can be said that for close-to pictures, a near-to-the-base position and a close-to-the-ground elevation for the camera produce the best effects, while for distant plays, such as those of the pitcher in action, second base, shortstop scoops-up and throws, etc., a more distant position, a long focus lens and an elevated viewpoint are desirable.

An aspiring amateur once asked me "Where shall I station myself to get the most exciting pictures, and how shall I know when to expect them?"



AN ERROR AT THIRD (Fig. 2) *C. H. Claudy*

Of course, most any one knows that there are more put-outs at first base than at second, and more at second and third than at home, generally speaking. Ergo, if you are in a hurry, first base is the place to find action the quickest. On the other hand the slide to first is rare and growing rarer all the time—(on a batted ball is meant, of course) so that the vast majority of first base plays will have something the appearance of figure 3, in which the runner is streaking it over the bag in a mad effort to print his spikes on the bag before the umpire sees the ball in the baseman's mit. Of course, plenty of interesting pictures can be made at first, particularly from a position a little towards the outfield and looking back towards the diamond. If there is a left-handed pitcher operating there is apt to be some fireworks in attempts at getting a runner asleep. I know a photographer who waited at first base for twenty-eight games for just one picture—he wanted a wild throw pulling the baseman off and the runner getting up from the dirt to try for second and he finally got it—and stumbled over a brick getting out of the park and cracked the plate. Zowie, as the players say, but he was one peevish photographer.

So third or home is the place to go if you want real baseball action—nor can you wait until some one gets on second base before wandering around to third to get the put-out or the safe play. About the time you pass behind the catcher the batter is going to knock a hot one to the pitcher who is going to field it and get the man by an eyelash and there you are—not anywhere. If you want third base plays get there when the man gets on first and just stay there until you take root—meanwhile there is none to object if you do the other kind of rooting, always providing you root for the home team whose manager let you squat on the ground.



SAFE ON FIRST? (Fig. 3) *C. H. Claudy*

Nervous reaction time, here, as in any speed photography, plays an important point. You have got to press the button or the bulb at the right time or the play is over and done with before the shutter has a chance to wink. More, you must learn to allow for the lost motion in your outfit as well as in your nerve, brain and muscle and press whatever it is that starts things in your camera that proper fraction of a second *in advance* of the play which is necessary to have the shutter operate exactly *on* the play.

Many different men, many different methods; personally, I always like to watch the play with my eyes, and not on its image through the hood of my camera—hence, after focusing carefully on the bag and getting the camera well set on my knees, as soon as the flying figure of the runner is half way to the base I lift my eyes, (but not my head, so that no muscular movement will move the instrument) and then when I see the play about to happen, press the lever and the deed is done. But other photographers like to watch the play through the hood and get equally good results that way—it is all a matter of how you can best get the picture.

The question of exposure resolves itself more into a question of light, lens and plate, than of negative. You don't have to calculate how much time to give a baseball picture in order to get a well-timed picture because you seldom if ever do get a well-timed picture-chance. You calculate on what's the least possible movement you can allow, and what's the greatest possible exposure you can give and get this minimum motion and let it go at that. From the slow three-hundredth for a base runner running towards you to the thousandth or less if your shutter will manage it for the runner with flying feet rounding third,

or the slide across your plate, the matter is entirely one of judgment of speed of object and speed of shutter, seldom or never one of "correct exposure." Yet as the samples published here show, on a bright day with a fast plate, there is no reason why a slightly undertimed picture should not make a perfectly presentable and enjoyable photograph.

You will have much joy, if you are a "fan" in noting the umpire's decision of "out" or "safe" against the close plays you photograph and seeing how well or how ill the picture bears him out. Also, if the umpire calls a runner of the home team "out" and you grind your teeth and rage against the "Robber, Thief and Pirate," the resulting picture may give you an added respect for the calm-faced man in the blue suit. Prejudice blinds us all—if you, fifteen feet from a play which seemed safe, find that the photograph proves the runner "out" and the umpire right, you will be able to make him at least an earnest mental apology.

The umpire called Schaefer "out" in the play illustrated in figure 4—and the stands roared. Yet the photograph shows the runner's foot not yet on the bag. And while it is true you can't see the ball in the third baseman's hand, he is certainly in position to make the put-out.

Altogether, photographing baseball plays is a joyful thing for the speed worker and as he has so many chances for action in an afternoon, it must be considered pleasant work. But let him who dubs it easy because it is pleasant take out the black box and roost awhile in the dirt, keep his head in a close game and not forget to touch the button when the last man is put out at home after three have scored on a triple and the stands are wild—not till then—nay, not until the picture proves that the excitement didn't upset his mental balance, can he call himself an expert at this fascinating by-path in the field of speed photography.



BLOCKING THE RUNNER OFF THE BAG (Fig. 4) *C. H. Claudy*



(Fig. 5)

"The Making of a Picture."

THE MAKING OF A PICTURE

BY SIDNEY ALLAN.

With Six Illustrations by A. A. Nicolas.



IN THIS article I want to show how much photographic picture-making is dependent on intelligent trimming and a few slight changes in the plate.

Figs. 4 and 5 represent two versions of the finished picture. I think the composition is a remarkable performance for an amateur. The triangle grouping is excellent. It holds together, and there is a charm in the lines and the flat treatment of planes that is quite unusual in quality. The picture contains all the elements of a true picture. The idea is worthy of a painter, and the arrangement vaguely reminds me of the works of Millais and Holman Hunt. The story is well told, one discerns its meaning at the first glance, and is favorably impressed by the delineation of the three characters, the old gypsy woman, the mysterious country lass (quite pre-Raphaelite in her facial expression and simple robe), and the young huntsman, of legendary wealth, and no doubt living in one of the manor houses among the hills. There is a flavor of genuine poetry about the group and it is difficult to say whether it originated in the skill of impersonation or in an unconscious talent for posing.

The photographer claims that it was largely an accident. He and some members of his family were out on a camping party. When the fire was built and they were lounging in the grass, somehow the idea of a picture of fortune-telling suggested itself. He did not make any hasty exposures. He gives in, however, that they made up their mind to make a picture. He thought out what he wanted and then proceeded to get it. Only three exposures were made, however. The result is shown in Figs. 1a, 1b, and 2.

Fig. 2 was finally accepted as the most successful one, and the selection was right. At the first glance the three versions seem pretty much alike, but after analysing every figure and incident separately you will realize that Fig. 2 is by far the best. In Fig. 1a the hunter's pose is poor, it shows neither the hands nor the gun to best advantage and then the empty space between the heads and arms of the women. The figures form a triangle with a regular hole in it, and that spoils the composition of the group. It is a trifle better in Fig. 1b, but even there the heads are too far apart. The pose of the hunter is much better, more picturesque and natural, but not yet as good as in Fig. 2. The story is well told in each instance, but the young woman looks too intently at her hand. She has her fortune told. There is nothing to see, only to hear. For that reason alone Fig. 2 is to be preferred. Fig. 1b is better in



(Fig. 1A)

this respect than 1a, still it is a contemplative rather than a listening attitude. It is still too much of a pose. Besides there are several details that disturb, for instance the forearm of the young woman behind the gypsy woman's hand, and the two hands of the hunter. Also the old woman's face is defective. A good deal more of it should be visible. Fig. 1b, however, is a great improvement on Fig. 1a. It needed only a little more concentration to make it equally as good as the third and last pose. In Fig. 2 the entire treatment is more fortunate. The pose of the young woman, looking away listlessly, is a graceful and natural one. There is little fault to find with the figure except with the hand that touches the blanket. If it were a little further down and not starting directly from the elbow it might look better. Or it should be still lower in value than it is. The attitude of the old woman is a trifle awkward and perhaps shows too much in profile, and I believe that if the dark shawl would have come around the other side of the face silhouetting the profile and running down into the hair and shoulder of the young woman, it would have been an improvement. It would have done away with the empty space between the two heads. The fact that it is so dark has saved the composition. The figure of the hunter is sufficiently picturesque to carry out the part, and the rectangular and diagonal position of the arms repeat the principal line idea of the other two figures. The skirt of the old gypsy woman could

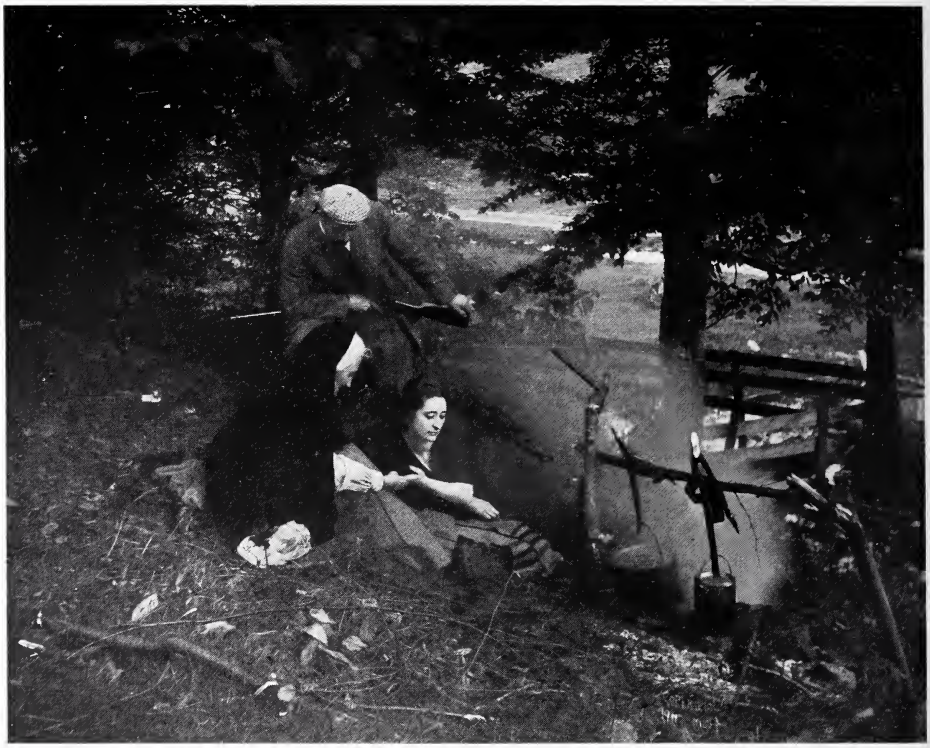


(Fig. 1B)

have been more skillfully aranged, and the two lumps of drapery on the ground although necessary as spots are rather meaningless.

There is no special light and shade composition worth discussing. The light seems to have been an even one. The contrasts are entirely furnished by the juxtaposition of texture and light and dark materials. All the shortcomings are minor ones, the group on the whole is good enough to be sent forth to any exhibition and to come home as a prize winner. The surrounding landscape is only good in parts. There is too much of it, and the fence is particularly unfortunate. One-fourth of the entire width of the picture on the right side and one-eighth on the left could well be missed.

The photographer realized this and trimmed the obtrusive parts and the result was Fig. 3. The picture was in this state when I first saw it. I liked it; at closer scrutiny, however, I felt that there was something wrong about it. The group did not make the impression of a group. I was lost too much in the background, and this seemed to be largely due to the dark shawl which showed no contour to the left. A group must be clearly silhouetted, no matter how slight the differentiation of tints may be. I suggested some brush or pencil work, indicating the back of the old woman. This produced the desired effect as can be noticed in Figs. 4 and 5. I also was of the opinion that the picture was trimmed down too much. The decorative background was satis-



(Fig. 2)

factory, but there was seen too little of the foreground. The figures were too near the lower margin and that gave the impression of a deficiency of atmospheric quality. The figures did not seem to be in space.

Further experimenting produced the two versions of Figs. 4 and 5. In both the entire length of the picture has been maintained. The details in the foreground as well as the leaves in the upper margin help the composition. The panel, Fig. 5, concentrates the interest entirely on the group, but Fig. 4, no doubt, will prove the more popular version. The suggestion of the campfire is a natural adjunct to the story. The average person likes to see as much as possible in a picture of this kind, and if any detail is introduced in such a was as to serve as a commentary (as in this instance), there is surely no harm done. I am not so certain that I myself might not prefer Fig. 4 to Fig. 5.

The principal point of interest in the picture is the face of the young woman. Many people may not consider it beautiful, but it represents a certain type that would appeal to artists, and surely has some fascination. With another more ordinary face, even if more beautiful, the picture would lose its principal charm. It is just the right face in the right place. Some pictorialists may argue that the hands should hold the main interest, and they are right. But the eye takes in the hands almost at the same moment as the young woman's face. You will notice that the picture is rather dark throughout. The faces

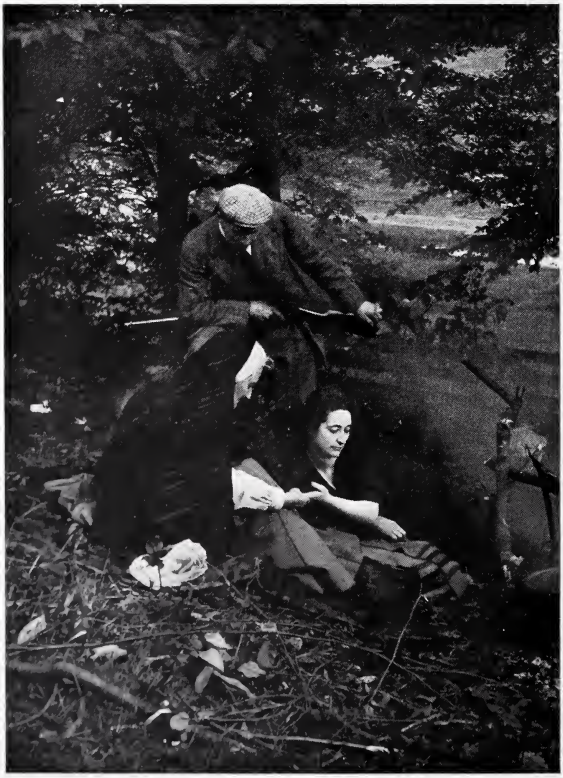


(Fig. 3)

of the two women, the hands, forearms, and the crumpled piece of drapery represent the only light spots in the arrangement, and they occupy such a small space, hardly the thirty-fifth part of the entire area, that they immediately attract our attention. And as the hands and the face of the young woman are closer together than the other two spots they are noticed first. This is a matter of optical consciousness, and operates like clock work, with a precision that reminds one of mathematical calculation. A pity that the majority of photographers are not aware of this or they would surely bestow more attention upon it. The cap of the hunter also furnishes a light spot. Being a trifle lighter than the blanket and skirt of the old woman it perfectly balances these planes. His suit, a trifle darker than the latter, is just in the right shade. Either lighter or darker it would have spoiled the effect. The dark shawl, and the hair and dress of the young woman furnish the necessary notes of contrast. It is really a composition in five flat tints.

A lucky incident was the foreshortening of the woman's figure. Her feet would have been exceedingly difficult to manage. They would have brought an unnecessary element of realism into the picture, and furthermore would have spoiled the triangular idea of composition or brought about a complete change of pose.

Some objection may be raised to the abundance of detail in the foreground and background. But I think this was necessary. It could only be subdued, but it would be no improvement. The main points of interest are so clearly defined that they would look too sharp if the rest of the picture were simplified. The pre-Raphaelite painters knew that, and always devoted as much care to the environment of a figure as to the figure itself. There are many styles of composition, but if there is elaborate detail in a *group* of figures the surroundings must show detail too or be manipulated in such a way that they show sufficient contrast of values to balance the precision of lines and the tint of the dominating planes.



(Fig. 4)

PHOTOGRAPHING AT THE WILD WEST SHOW

JOHN L. WELLINGTON.

With Seven Illustrations by the Author.



HERE in the East, an opportunity to photograph the American Indian is very infrequent. In his picturesque dress, astride his hardy pony, or executing one of his outlandish dances, he makes a subject that is very attractive but which is separated from us by so many good hundreds of miles, that, in so far as the cameras of most of us may profit by him, he might as well be in Ceylon in the dark. But, after all, there is a time when the Indian comes to us here, and displays, in a more or less natural manner, a small measure of his native behavior, when, if we are prepared with the proper equipment, we may easily get pictures of him. It is when he comes to play, with a certain inextinguishable dignity, the leading part in the Wild West Show.

The accompanying photographs were made on the afternoon of a fairly bright day in August. The camera used was a Revolving-Back Graflex equipped with a Goerz Dagor of 12 inches focus which was used at its full opening of *f*6.8

There is something about the appearance of a Graflex which creates a general feeling of confidence in the picture-taking ability of the operator. As



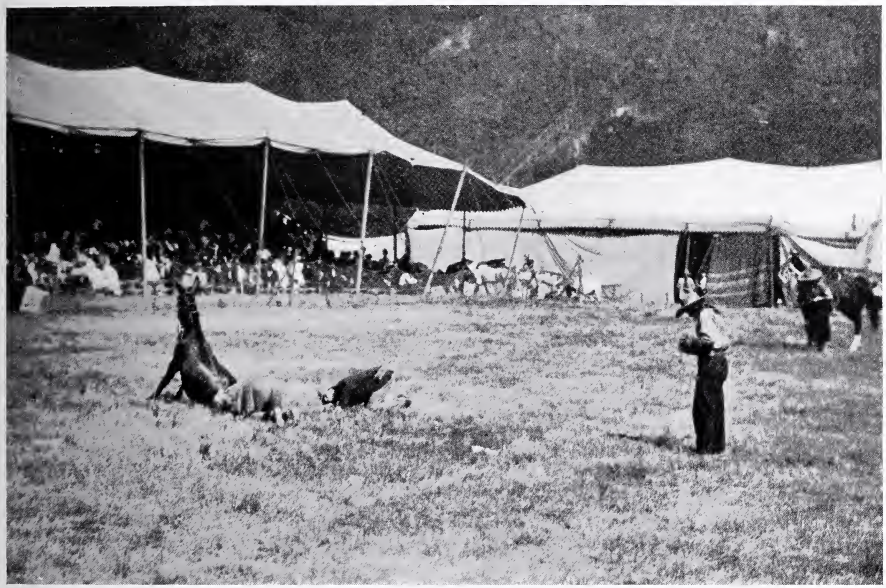
INDIAN TEPEES



THE WAR DANCE



INDIAN CHIEFS

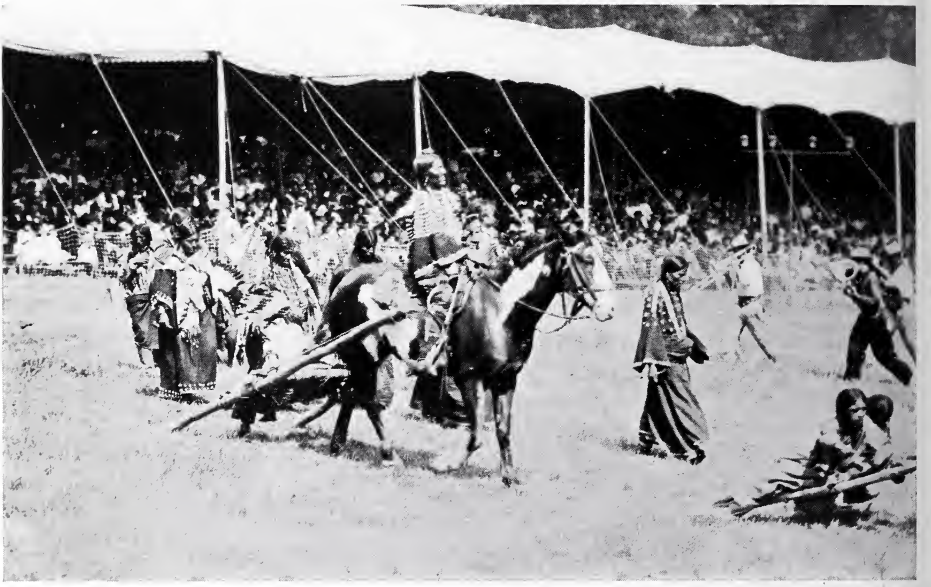


THE CAMERA MAN IN ACTION

soon as I had given my ticket and had entered the enclosure, I was offered the job of making postcard portraits of the seller of reserved seats and of the whistle-vendor to both of whom I made suitable excuses. I took my position just outside the rope-netting at a place where I thought the angle of the sun would give the best general lighting, and waited for the show to begin.

I used a dozen plates and a film-pack, and would have enjoyed exposing as many more. Much of the performance I saw as a vividly colored motion-picture on the ground glass. Whenever something promising formed itself, I pressed the button; and indeed it was difficult to resist the temptation to shoot away all the ammunition on the opening review. It was fascinating to stand quietly in the same place, and watch subject after subject present itself. The show people were hospitable; the manager, affable. I promised him a couple of prints (which I sent him), and finally I made the acquaintance of a disabled cowboy with long hair who was exposing films literally by the yard in a 3A Kodak. I gave him a look into the Graflex, and he invited me inside the ropes. He is shown snapping the clowns and the donkey; and was an interesting figure to the spectators.

One distinct advantage of this method of photographing Indians lies in the fact that their attention is so thoroughly concerned in the business of the performance that they do not heed the photographer. As a rule, Indians, even the partially sophisticated Indians of Wild West shows, feel a deep-rooted aversion to having their images recorded. I remember trying, several years ago, to get pictures with a Kodak of some of Buffalo Bill's braves. It was in the morning when they had just arrived at the place where the performance was to be given. By the time I had sauntered up, innocently leveled



ON THE TRAIL



INDIAN MOUNTED FOOTBALL

the camera, and pushed the lever, I got nothing but a row of broad backs, hiding heads bowed out of range. I succeeded in getting a few groups of curious faces, only by sighting very intently at right angles and snapping at random. Even then I felt as if I were taking an unsportsmanlike advantage.

Of course I do not mean to pretend that you can get the sort of pictures that could be made where these interesting people are at home on the Western plains, set in natural environment, where you might wait for pleasing groupings and backgrounds, and where, in a sense, you might even pose the subjects; but as a compensation you may remain comfortably in almost the same spot, and make your choice at will of a very enjoyable series of pictures. And if you frankly take photographs of the Indian of the Wild West Show instead of trying to get pictures of the Indian of the plains, you will meet with better success, and the results will be more satisfying.



THE DEADWOOD COACH

POSING THE MODEL OUTDOORS

BY WILLIAM S. RICE.

With Five Illustrations by the Author.



PHOTOGRAPHIC studies of the nude model, somehow seldom give us the same pleasure or satisfaction that the creations of the painter do along the same line.

It is doubtless because the painter idealized and refined the imperfect and the commonplace, whereas the camera simply reproduces what it sees and doesn't feel, and alas, that too often in an exaggerated manner.

Too often the photographs of nude models taken indoors look vulgar and sensual, especially when partially draped, the latter merely accentuating the effect of their nudity.

With nature as a background, the nude model, posed for decorative effects, is more likely to be robbed of its vulgarity or suggestiveness, unless the subject and its background setting are not in harmony. At any rate the model posed out-of-doors, where flowers and foliage lend their added charms, is more natural and spontaneous than when posed indoors among a lot of draperies.

To obtain good results in this particular line of work is not easy as there are many difficulties in the way of success. First, a suitable model must be had and, second, a harmonious background. In any of the large cities professional artist's models may be easily obtained but the settings for the poses are difficult to find; for we must go "far from the maddening crowd" to avoid the stare and vulgar jests of the idly curious who would undoubtedly look upon the whole proceeding with feelings difficult to describe. We are all familiar with the manner in which a sketch artist is looked upon by the layman when encountered in the woods or by the roadside. In the former case it is a mild form of lunacy but in the latter, it might be even regarded as a more acute form of insanity.



BACCHUS *Wm. S. Rice*



SUMMER *Wm. S. Rice*

Some years ago I decided to experiment along these lines, carefully studying local scenery within several miles of our city. Several spots were located that composed well and the light and shade effects at different times of the day were carefully compared. The early morning light seemed best for the subject and was therefore chosen.

Some of the poses had been decided upon before the actual posing took place but very often others, more interesting and spontaneous were constantly suggesting themselves by accidental poses of the model; these, in many cases were far better than the ones originally planned and were therefore chosen for the pictures.

The scenery very often suggests a pose by lending itself in various ways, and the more one takes advantage of local conditions, instead of striving for the far-fetched effect, the better one's subject will be. Very often, the pose must be chosen entirely with reference to the bit of landscape one has to work with.

The rugged mountains with their crags, rocks and aged wind-blown pines, demand that *our models* must be in harmony with their setting. The lily ponds with reedy banks suggest the more youthful nymph-like model—a young bather, decoratively posed among the reeds which form a pleasing pattern of delicately vibrating light and shade on the body.

You may have the model posed in the act of stooping far over the margin of the pond, steadfastly gazing admiringly at his or her reflection in the mirror-like surface, or again reaching out for the elusive water lily or its decorative pads.

The soft bed of grass under the cluster of oaks suggests a seated pose for the bather to dry off after his dip in the stream. These same oaks, gnarled near their base may suggest a full length figure subject. We therefore, aim to pose the subject naturally and gracefully and with much careful thought in order that its lines will harmonize or compose well with those of the tree trunks and the various light and dark areas of the background.

Our poses may be merely abstract, but must be decorative by all means in order to be good compositions. A knowledge of this great art is very essential to redeem our nude pictures from being commonplace or even vulgar.

The use of drapery of any kind is a delicate problem to handle as it is rather inclined to look stiff and clumsy and accent, rather than subdue, nudity. If it is necessary to cancel anything offensive in the subject let nature itself assist with foliage or flowers adroitly placed that one is not conscious of its intention. Let this light guide you "True art is to conceal art," and many unpleasant experiences may be avoided.

Indoors one may, of course, control the light better and obtain effects that are simpler than outdoors when light is far more abundant, and is reflected from numerous sources. The subject entitled "Bacchus" was taken indoors with a dark green window shade as a background, and the real fruit and foliage were used for the decorative accessories.

Real fruit and flowers must always be used for such poses. Many professional photographers, and some of note as well, use artificial flowers and fruit, and anyone who is familiar at all with botany can detect the fraud every time. You might ask what difference does it make so long as nine out of ten of the public cannot detect the difference. On the stage such fakes are allowable, but in art we won't stand for it, not even in photography. So let us avoid fakes as much as possible and produce honest, straightforward work that will appeal for the sake of its frankness.

A little retouching, if it is done artistically and not overdone, will sometimes assist in the composition and the spotting-out of its many un-



THE WOOD SPIRIT *Wm. S. Rice*

important light spaces, that distract the eye from the main motive.

The woods, mountains, marshes and the seashore are suitable places to pose the living model, and many charming subjects may be obtained if one uses a little judgment in the selection.

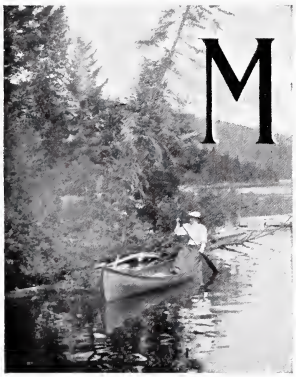
Symbolism is a favorite motive for poses, but unless every detail is harmonious and consistent, the model and its accessories and background, the results are apt to be either ludicrous or decidedly vulgar instead of possessing the dignity and seriousness the theme demands.



THE LILY GATHERER *Wm. S. Rice*

HINTS FOR AMATEURS

BY HYMAN BISGEIER.



MOST amateurs do not keep any record of their pictures. If they knew the good which comes of doing so, they would instantly begin to keep one. I have been keeping such a record for some time past and have been greatly benefitted by it. This is how I use my record book.

I procured a book about 4½ x 7½ inches, small enough to fit into the inside coat pocket, and large enough not to be cramped for room. The first half of the book I use for my records. I drew vertical lines down both pages and headed the columns as follows:

I draw a line in red all the way across the pages between each dozen plates. Then in the second half of the book I keep miscellaneous matter relating to photography. Wherever I see something in a magazine or in a book, which relates to photography and which may be of use to me, I either cut it out and paste the clipping in the book or else I copy the paragraph into it.

As an example of what topics to collect, I give the following from among my own:

"Approximate Exposure Table."

"Time Exposure Out-of-Doors."

"Chemical Weights and Measures."

'Table of Comparative Exposure," etc., etc.

In order to facilitate the using of this latter half of the book, I have numbered the pages and arranged a table of contents so that I can easily find the topic I am looking for.

Another thing which I do is the following: When I print the picture I put the time required for the exposure of the print in a corner under the column of "Exposure." This saves a waste of material at some future time when I wish to make another print from that negative.

DATE	TIME	LIGHT	SUBJECT	EXPOS.	STOP	PLATE	REMARKS

Many amateurs who use glass plates and who keep all their old negatives, soon accumulate a large store of them. Then if at some future time they desire to make a print from an old negative, they must hunt through a large pile of them before finding the one wanted. I have adopted the following plan to avoid this trouble.

I keep the plates separated in dozens in the boxes in which they were originally bought. Each box is numbered, and the corresponding number is placed in my record book somewhere between the red lines which were drawn above and below that dozen plates. In this way, by referring to my record book, I can instantly find out in what package the negative is.



THE BATHER — *Wm. S. Rice*



ITALIAN FLOWER MAID

RETOUCHING

BY THE REV. F. C. LAMBERT.

THE following instructive notes in regard to retouching are reprinted from the photographic column of *The London Telegram,* by the Rev. F. C. Lambert:

It is interesting to note how certain superstitions linger long among photographers. One such notion is that "retouching is too difficult for the amateur." But, as a matter of fact, if the worker will only be wise enough to limit himself to the commonsense use of retouching—viz., the remedying of defects—the work is generally easy enough, and is just a matter of a little care and patience, *i.e.,* being content to "make haste slowly," until a little finger dexterity is acquired. By "defects" one means dust-spots, scratches, over-thin (shadow) part, or over-dense (high) lights, etc. The procedure consists in applying just one drop of retouching medium to the film and then rubbing in over an area about equal to the size of a crown-piece. This is best done by using a bit of old linen rag, rubbing the medium on the film side of the negative with a circular or spiral movement of the hand until it is evenly distributed.

The object of applying the medium to the film is to give a slight "tooth," as it is called, so that the touches of the pencil will "take," or adhere to the film. The beginner is apt to imagine that the more medium used the better the tooth, but this is not the case at all. The merest trace is all that is required. Retouching pencils are made of a specially hard kind of "lead," or plumbago. The most convenient form is that which consists of a holder and lead as two separate parts. The lead is pointed by rubbing it with a slow, rolling motion on a strip of extra fine glass or sand paper. The pointed part should be somewhat long—about an inch—and evenly tapering to a pin-like point. The beginner is apt to aim at too fine a point. As a matter of fact the needle-point is seldom wanted, and is apt to scratch the film unless delicately used.

The leads are made in about six grades of hardness or numbers. Work should be commenced with the harder lead, and if this, after due patience, is found not to give enough density, then a softer number may be tried. The softer lead more easily rubs off, and so is to be avoided when possible. Numbers 1, 3, and 5, or 2, 4, and 6, will meet all normal cases. The beginner is usually surprised to find that he cannot see the effect of every touch, but this is no real defect. For it is far better to get the effect by half a dozen or a dozen light touches than by one or two firmer strokes. For broad, large spaces the pencil should be held at an angle of about 45 degrees with the film surface, but for eradicating very tiny spots it needs holding perpendicular to the plate. When dealing with patches other than those of approximately circular shape the touches may desirably take the form of short lines crossing (or "hatching") at a small angle. It is very seldom indeed desirable for the lines to cross each other at or near a right angle.



ADIRONDACK BIRCHES

B. L. Fredenhall

Editorial Notes



OUR frontispiece this month is an excellent surf picture, by Mr. J. R. Peterson, of Portland, Maine. It is a characteristic scene from the Eastern Promenade. The accompanying full-page illustration, entitled "Adirondack Birches," is from a negative by Mr. B. L. Fredenhall, of Albany, New York, and was made at Brant Lake in the same state.

IN reply to some queries about "vanadium toning" it may be explained that this process is chiefly employed for imparting a green color or tinge to bromide prints. A print is first bleached by bathing it in a 25 grains per ounce solution of potassium ferricyanide, to which have been added a few drops of liquid ammonia, *i. e.,* just enough to impart a slight smell of ammonia. The print after bleaching, is now well washed in a gently-flowing stream or in several changes of water by the dish method. The toning bath, in its simplest form, is made up as follows: (a) Vanadium chloride, 8 gr. per ounce, and (b) iron perchloride 8 gr. per ounce of water. Take one dram of (a), add six drams of water, and then add one dram of (2). Otherwise stated, the toning bath (after bleaching) contains one grain of vanadium chloride and one grain of ferric chloride per ounce of water.

DAMP in the darkroom is one of the possible nuisances from which the amateur is not unlikely to suffer. For, in his case, it is not infrequently "Hobson's choice," *i.e.,* a certain damp cellar or outhouse or no darkroom at all. Of course, he will not think of leaving plates or printing-papers in such a place, but will just take with him the material required for the moment's use. But to carry a number of bottles to and fro is a tiresome and risky business. For the most part the only evil result of damp in their case is that the labels become illegible, and drop-off. In such a case it is better to use a soft lead pencil rather than ink, then give each label a coat of celluloid dissolved in amyl acetate, and then a second coat when the first is dry. One can clean up an old negative film, cut it up into fine shreds, put it in a well-corked bottle, and

cover the cuttings with the solvent. The solution should have the consistency of glycerine.



THERE has been some talk, and also some misunderstanding, lately among those to whom high speed or rapid shutter photography appeals concerning what is sometimes called "personal equation" and sometimes "latent period." The beginner very naturally starts off with the notion, when photographing, let us say, a horse jumping over a hurdle, that his finger presses the shutter release at the very instant the eye sees and determines the precise time chosen for the picture. Extended experience shows that this is not the case. Do we not all know how time is lost by changing trains and platforms when on a journey? In the case of photographing a rapidly moving object the following changes and delays occur—individually small, but in the aggregate not to be ignored. (We may regard the time taken for the light to travel from the object to the eye as negligible for all terrestrial objects.)



THE first delay is between the arrival of the light in the eye and its perception by the brain. Then comes the time required by the brain cells to connect up the incoming nerve-line with the outgoing nerve-line along which is to be sent the nerve message to a certain muscle to contract. Next comes the time between the receiving of the message by the muscle and the commencement of contraction; finally, the actual contracting of the muscle takes time. The rate of travel of nerve current was first measured by Helmholtz, and in a frog was found to be 30 metres per second. Piper, measuring in the arm of a man, estimated it at 125 metres per second. Between these limits other workers have given various results. The latent period of muscular response, *i.e.*, between receiving a nerve message and acting, is variously put down between 1-25 second to 1-400 second.



THE obvious difficulties in determining these quantities largely accounts for the discrepancies between various observers. But to sum up matters so far as practical high-speed photography is concerned, the first point is that there must be an interval of some kind between the eye receiving the light stimulus and the muscle acting, *i.e.*, "reaction time," or "latent period." Next, this undoubtedly varies in different individuals, hence the term "personal equation." It can be reduced by practice. It is much less when the eye is on the alert to anticipate an event. In this case 1-100 second is a well-supported estimate; but the reaction time may be as long as one half second. The muscle takes about 1-25 second to arrive at maximum contraction. Curiously enough, and contrary to popular impression, the reaction time between receiving and acting on an impression through the eye is not quite so quick as when the message comes through the ear with the majority of individuals.

TO realize how this reaction time actually works out in practice, take the case of an express train traveling sixty miles per hour, *i.e.,* 88 feet per second. Now, with the majority of hand-camera workers, the reaction time is between 1-10 second and 1-20 second, so during these intervals the train will have moved from, say, 4 feet to 8 feet beyond where the eye saw it at the moment of selection. How, then, it may be asked, does the camera-man contrive to catch his object at the precise moment and position desired? The answer is that he learns to anticipate the event by a brief time interval to meet his own reaction time. Thus, in the case of a man on a galloping horse slicing the lemon, the photographer selects the eye moment before the sword has reached the object, so that by the time the hand has actuated the shutter the sword is dividing the fruit.



THE GOOD SHEPHERDESS

Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

SULPHUR TONING WITHOUT BLEACHING.

A solution which will convert the image directly into silver sulphide without first bleaching in a mixture of potassium ferricyanide and bromide, is made according to the "Chemiker-Zeitung" as follows:

English.		Metric.
33 ozs.	Water	1000 c.c.
6½ ozs.	Sodium sulphide	200.0 gms.
5 drams	Selenium	20.0 gms.

The carefully fixed and washed print can be toned by means of a brush by placing the print on a glass plate.

If many prints are to be toned, they should be placed in a tray and the above solution diluted.

After toning, if the whites show any yellow, they should be put in a solution of sodium bisulphite, which will also prevent any softening of the gelatine.

A variety of brown tones may be obtained by this method.

—*Photo-Revue,* March 12, '12
—*Photographisches Wochenblatt,* Vol. 38, No. 14.

* * *

HOLES IN CAMERA BELLOWS.

When, after long use or through accident, the bellows begins to leak light, it may be easily repaired in the following manner: For small holes a mixture of rubber solution and lamp black is rubbed together to form a paste.

The hole and the material surrounding it is covered with sufficient paste. Talcum powder is then dusted over it to remove the stickiness. Should the holes prove too large for this treatment, a piece of thin black cloth is covered with the mixture and is applied like a plaster by pressing it tightly on the defective spot and covering as before with talcum powder.

—*Photographisches Wochenblatt,* Vol. 38, No. 14.

* * *

CHROMIC ACID FOR REVERSING THE AUTOCHROME IMAGE.

The reversing of the autochrome negative image is carried out, as is well known, with potassium permanganate acidified with sulphuric acid. The great ease with which the permanganate is decomposed with the separation of brown manganese peroxide, leads to dark spots and streaks which are detrimental to the picture.

It is not absolutely necessary to use permanganate for etching away the negative picture. We have in chromic acid a substitute which does the same duty without the separation of any insoluble colored body.

Reversing solution.

English.		Metric.
33 ozs.	Water	1000 c.c.
15 grains	Potassium dichromate	1.0 gm.
75 to 150 minims	Sulphuric acid	5 to 10 c.c.

Dr. Theodor Mayer, who made comparative tests, found that the above solution yielded perfectly clear pictures.

The bath has other valuable properties, one is that it keeps indefinitely, while permanganate solution soon decomposes and becomes useless.

Permanganate is also deeply colored and it is difficult to see any floating bodies. The chrome bath is clear and orange-yellow in color.

—*Photographisches Wochenblatt,* Vol. 38. No. 14.

Among the Camera Clubs

[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—THE EDITORS.]

Manly W. Tyree, of Raleigh, N. C., Secretary of the Photographers' Association of America, has sent out his diagram of the floor space of Horicultural Hall in Philadelphia, where the convention will be held next summer. Booths will be provided for those desiring them, handsomely painted in white Colonial enamel, and supplied with white flower boxes filled with evergreens and artificial flowers. The back walls of the booths will be covered with natural colored burlap, while the name of the firm will be in black and gold lettering on a cloth sign 15 inches high. These booths, while not compulsory, will be found a great convenience, and will give a uniform appearance to the hall.

THE NATIONAL CONVENTION—PHILADELPHIA—WEEK OF JULY 22.

Philadelphia will open its arms to the photographers of this country in a most hearty welcome during the week of July 22, when the Photographers' Association of America will hold its Thirty-second Annual Convention. Philadelphia photographers are noted for their hospitality, and they have formed a local committee for the purpose of looking after and entertaining the visitors. The convention hall—the Philadelphia Horicultural Hall— is one of the most beautiful buildings in which the National Convention has ever been held, and as all the display booths will be built upon a systematic plan, with beautiful



HORTICULTURAL HALL, PHILADELPHIA

decorations and palms, the effect will be a fine one as the visitor enters the hall.

It is figured that the attendance at Philadelphia will be the largest in the history of the Association, and with this in mind the manufacturers are preparing wonderful displays, and every corner of the building will be full to repletion with pictures, apparatus, and new notions for the photographer. The lecture hall, the picture exhibit, and the manufacturers displays will all be under one roof, and right across the avenue will be the headquarters hotel—the Walton. Never before have things been so convenient.

The man who misses the 1912 National Convention will miss the best treat of his life merely from the display point of view, while the entertainment and lecture features are figured on a basis which will mark the Thirty-sceond Convention as "the leader of them all."

⁂ ⁂ ⁂

Owing to very much dissatisfaction with very many of the methods of the Photographic Club, of Baltimore City, most of its originators and older members as well as quite a few of the more recent members decided it would be wise to start a new club and for this purpose and in connection with about ten of the Mt. Royal Camera Club, a new club has been formed under the title of "The Baltimore Camera Club," with temporary quarters at 1111 Linden avenue, Baltimore, but a committee has been appointed to seek more commodious and up-to-date quarters, and in a desirable and central location. This has already been decided but until lease is secured positively, it is perhaps wise not to mention the location, etc., but full particulars will be given later.

In the Baltimore Camera Club, and who have been for years most active members of the old Photographic Club of Baltimore City, will be found Messrs. McAllister, Norris, Williar, Barker, Tormey, Ziegfeld, Kessel, Jenkel, Orison, Eigenrang, Hall and others.

The new club started off with a charter membership of 30 and has already on application quite a good list of most valuable photographic timber and just as soon as the matter of new quarters is fully decided, a rapidly increasing membership is anticipated.

The following officers were elected, viz.: J. L. Hayes, president; E. M. Barker, vice-president, J. D. Wade, treasurer, G. E. Kessel, secretary.

Constitution and by-laws have been adopted and all standing committees appointed and everything is working smoothly and all members are now looking forward with much interest to the day the club will move into its new quarters.

⁂ ⁂ ⁂

ILLINOIS COLLEGE OF PHOTOGRAPHY.

Mrs. Inez Ritchie, official photographer for the State of Illinois Engineering Department enrolled at the I. C P. last month for a special course in photography.

The June graduating class at the College of Photography was a notable one in two respects; first, for its grace and beauty and again for its highly artistic temperament. It was composed of the six following ladies: Miss Myrno Moss, Miss Nonie Rhodes, Miss Virginia Forwood, Miss Rose Wiesender, Mrs. Ada Latshaw and Mrs. Madeline Gavin. We predict a future for this constellation that will make the original Floradora Sextette or any other sextette look like a vulgar fraction.

Prof. John Gums has just returned from the State Convention of M. E. Sunday Schools held at Elgin. Prof. Gums was a delegate from this county.

Mr. Jose Santiago Castillo, who finished a course in photo-engraving last month will make a tour of Europe during the coming year, after which he will engage in the photo-engraving business in some South American city.

Mr. and Mrs. Clarence I. Brown, who finished the photographic course in May, will take up special work at the Chicago Art Institute for about six months, after which they will open a modern studio in some western city. Their display of graduation work at the college was the largest and finest set of samples that has been exhibited for a long time. It consisted of over 250 large prints.

Mr. Otho L. Smith, student of 1909, spent a couple of weeks at the college last month in review work. Since leaving the college he has been specializing on commercial photography.

Photographic Reviews

The ten years which have elapsed since the issue of the eighth edition of the "Dictionary of Photography," edited by T. Bolas, and the new edition (ninth), edited by F. J. Mortimer, which has just made its very welcome appearance, have been far from unfruitful. This new book contains 738 pages, as against 656 in the eighth edition. The eighty additional pages by no means represent the only difference between the two volumes, for not only has much quite new matter been incorporated, but also many of the previous notes have been revised, expanded, and brought up-to-date. In a few cases we miss old friends which later progress has rendered obsolete, or of minor interest. Among the recent topics which the new book deals with in an adequate manner it must suffice to mention only a few, viz., Autochrome, Dufay, and Thames plates (this last-named being of special interest in connection with the new Paget color plate), Flashlight work, Gaslight paper, Phototelegraphy, Phosphate paper, Plate-testing and speeds, Oil pigment and Bromoil processes. The editor and publishers (Hazell, Watson, and Viney), are to be warmly congratulated on the production of a book which certainly ought to find a place in every photographer's library or work-room.

* * *

That valuable little magazine, entitled *Portrait,* which is published by the Ansco Company each month, continues to grow more interesting and valuable with each number. The June issue contains an exceedingly worth-while article on "Something Different in Home Portraiture," by Felix Raymer, with illustrations. This important paper is to be continued in subsequent numbers. Another valuable article is descriptive of a convenient method for Vignette and Combination Pictures, with profuse illustrations. *Portrait* contains more illustrations than formerly, in addition to the Hall of Fame Portrait which invariably embellishes the cover. This month, the latter is an excellent likeness of H. C. Galbraith, of Minneapolis, Minn.

* * *

There are several noteworthy features in the Bausch & Lomb Co.'s new catalogue to which we would call the attention of our readers. The information contained in their booklet, "What Lens Shall I Buy?" has proved so useful in guiding prospective customers that it has been incorporated in the catalogue, with typical specimen illustrations added: This chapter, together with those describing the development of photographic lenses and the technical terms used in photography, will be found invaluable to both trade and public.

The catalogue proper covers the field more completely than any they have issued in recent years, presenting all of the lenses and accessories which they manufacture for photographic purposes. These include in addition to those listed in their previous edition, the Portrait Unar for professional photographers and the Apochromat Tessar with accessories for photo-engravers. Their Tessar Ic, *f.* 3.5, for motion picture cameras, is offered with a new focusing mount of novel design. For all of these lenses they are prepared to send special literature or information upon request.

The arrangement of the catalogue has also been improved, we believe, from the standpoint of serviceability. All of the price lists are grouped in the rear of the book, permitting convenient comparison of the prices of different lenses. Following the lists, a table indicates the sizes of the lenses and shutters which can be fitted to various cameras. The catalogue is overflowing with startling and beautiful halftones, examples of what can be done with Bausch & Lomb lenses

$5577.00 IN THREE CASH PRIZES

First Prize, £1000 ($4850.00)
Second Prize, £ 100 ($ 485.00)
Third Prize, £ 50 ($ 242.50)

Through the courtesy of the Eastman Kodak Company we are enabled to present to our readers full details regarding one of the greatest, if not the greatest, photographic competition ever instituted.

The prizes are in cash, and munificent in amount; the competition is open to the world, and the conditions are such that the photographs must all be made in the pleasantest of circumstances, and the novice standing an equal chance with the expert.

The London *Daily Mail* is one of the recognized institutions of Great Britain and has an enormous circulation.

It has lent its powerful aid to many worthy enterprises and has instituted this contest to stimulate an interest in the out-of-doors and amateur picture-making.

This contest, open to the world, is called "The Best Holiday Competition," using the word "holiday" in the same sense as we employ the word "vacation."

The first prize is £1000, the second prize £100 and the third prize £50, or an aggregate of five thousand five hundred and seventy-five dollars in our money.

The terms of the competition are as follows:

RULES OF THE DAILY MAIL £1000 PHOTOGRAPHIC COMPETITION.

The following are the Rules of the Competition which competitors are advised to read carefully and keep for reference:

1.—Each competitor to submit a set of twelve photographs of a particular holiday. In case of more than one holiday a competitor may send in a set for each holiday.

2.—A set of photographs must be sent in within twenty-one days of the completion of a particular holiday. The completion of the holiday is the date of returning home.

3.—The last date for receiving photographs is October 31.

4.—Only photographs taken subsequent to May 15, the date on which the *Daily Mail* first announced the scheme, are eligible.

5.—For the purpose of the competition a holiday is defined as a bona fide holiday of not less than seven days' duration spent anywhere.

6.—The photographs submitted need not all be taken by the competitor. They must, however, be taken by members of the party with whom the holiday is spent.

7.—Competitors enter on the distinct understanding that the sole copyright of the photographs for which prizes are awarded is vested in the *Daily Mail*.

8.—The editor reserves the right to reproduce in any publication any photographs sent in in competition.

9.—Photographs should not be sent in loose. They may be pasted on a single sheet of, say, cartridge paper, or, preferably, in an inexpensive album.

10.—No photographs will be returned to competitors.

11.—No responsibility will be accepted in the event of any entry miscarrying.

12.—With each entry the make and size of camera, and also the make of film or plate and printing paper must be given.

13.—Competitors must give their full name and address, age (if under twenty-one), and inclusive dates of holidays.

14.—The scene or incident photographed must be described in a few words under each picture.

15.—If necessary the winners may be called upon by the judges to submit proof that their photographs comply with the rules.

16.—The decision as announced by the *Daily Mail* will be final.

17.—Photographs must be addressed,

"BEST HOLIDAY,"
Carmelite House,
Tallis Street,
London, E. C.

In the choice of the camera as the medium through which the best vacation is to be recorded an unusual response is at once assured. It will appeal strongly

to the thousands of people who already possess cameras and who have tasted the delights of keeping a picture record of vacation time.

The conditions in this competition are indeed wide. The sort of pictures that will win are those that will cause every one who sees them to remark "What a good time you must have had."

The whole aim should be to show how you enjoyed yourself.

Neither technical skill in photography, ingenuity in choosing a novel vacation, nor even an expensive vacation are necessary for success.

You are offered these prizes to prove practically that you had a happy vacation.

You may have enjoyed your vacation more than any one you ever had but your pictures must tell why.

They must be so full of human interest that any stranger viewing them will exclaim "What a splendid time they must have had."

The judges in this competition are not going to be photographic experts. They will be men and women of the world, though they may be influenced slightly by bright, clean prints, will not put photographic cleverness before human interest and freshness of thought.

For that reason a set of prints showing picnic parties, bathing and boating scenes, and the like will take precedence over a set showing merely the famous sights of any one section of the country.

With such a wonderful and beautiful part of the world as ours, and with our interest as a people in all that pertains to the out-of-doors, to say nothing of our devotion to picture-making, we should without doubt bring one or more of these prizes home to the United States.

Remember there are absolutely no restrictions as to cameras, plates or papers used, you may have your pictures finished by a professional if you wish; and also that the merest novice in picture-making may win, as it is the stories the picture tell that counts.

Your set of pictures must be in the office of the London *Daily Mail* by October 31st, 1912.

The awards are well worth while and the pleasure attached to the making of the pictures is equally great.

Let us have a big representation from this country and bring home the prizes to the U. S. A.



Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

ANSCO THE MEANS OF EDUCATION AND A SOURCE OF ENJOYMENT FOR OLD AND YOUNG ALIKE.

The title page of the Ansco Catalogue for 1912 consists of this simple statement made by Elbert Hubbard:

Here is a camera catalogue that carries a message of great importance to mankind. Its artistic cover design represents the idea expressed by Elbert Hubbard in his interesting preachment "Snapshots and Education," with which the catalogue itself is prefaced, and the preachment is illustrated with thumb half-tone vignettes showing pictorially the value of any agency that helps to bring the old and young together in close touch with nature and the great out-of-doors.

The illustrations begin with Aristotle—whose methods in school teaching have never



been surpassed, and his apt pupil Alexander the Great, bringing us down to this day and generation in which Ansco photography, according to Elbert Hubbard, is "the means of education and a source of enjoyment for old and young alike."

Be sure to send to the Ansco Company, Binghamton, N. Y., for their 1912 catalogue. It is worth having and is one of the few pieces of free advertising literature that may be read with interest and profit from cover to cover.

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During the past month we have received over 3,000 subscriptions through dealers, proving that they have been quick to recognize the value of the *Ingento Photo News* as a direct selling force for them.

For every ten cents which is sent in by the dealer for a subscription for his customer, we are spending 65 cents; in other words, it costs us just 75 cents a year to send this magazine to one of your patrons. We are carrying the big end of the expense because we know it will enable our customers to increase their trade, making it possible for us to serve them in greater degree than heretofore.

We want to urge all dealers who have not already sent in subscriptions for their best customers to do so at once, for the sooner your customers begin to receive the *Photo News*, the sooner will its sales building power be felt in your cash register.

Make out a list of your best customers to-day—customers whose trade you especially value and would like to see increased. It will prove the best advertising you have ever bought for 10 cents or ten times that amount. Do it now.

Very truly yours,
BURKE & JAMES, Inc.

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We call attention to the remarkable pictures from nature which illustrate the advertisements of the Eastman Kodak Company in this number of THE PHOTOGRAPHIC TIMES. They were made at a distance of only 2 feet 8 inches from the subject, with the Kodak Portrait attachment, and are excellent examples of the scientifically correct work which can be made with this attachment. All lovers of birds or animals, or of floral nature, should possess one of these portrait attachments for their summer work. They are particularly effective in photographing small objects, where there is an advantage in getting them at close range; and, as the advertisement happily states, they literally bring one "close to nature." The price of the Kodak Portrait attachment is only 50 cents, so that there is no reason why every photographer should not possess one.

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We find the Kodak Velvet Green Paper a very appropriate medium for printing many summer negatives. It produces a beautiful carbon green effect, suitable for out-of-door prints, and works in every way the same as Velox, except that it prints by daylight. Velvet Green Postcards are also now manufactured by the Eastman Kodak Company, and they will be found especially suitable for vacation purposes.

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If you have not tried the Kodak Acid Fixing Powders, we recommend that you secure some for your summer use. They contain three (3) distinct elements; a fixing agent, an acid or anti-stain agent and a hardening agent, which are mixed in precisely the right proportions.

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We have received a very interesting leaflet from the Wollensak Optical Co., which gives a short history of the founders and present workers of the company, with their photographs. Mr. Gorton, the general manager, gives a brief outline of Wollensak's history, policies, and methods, and the booklet, because of its tsraightforward style and because it has the facts to back up its statements, gives a distinctly favorable impression of the Wollensak Optical Co.

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The Defender Photo Supply Company, Rochester, N. Y., has opened a branch in San Francisco, in the Aronson Building, Third and Mission streets. T. C. Muller is manager of the branch. The Sunset Photo Supply Company, at 895 Market street will continue to represent the Defender Company in a retail capacity.

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The makers of "Agfa" Blitzlicht (Flashpowder), state that this powder is especially suited for the making of autochrome plates,

it only being necessary to use a screen adapted to this light. Such a screen can be prepared as follows:

120 ccm. of a 6% gelatin solution.

12 ccm. Filter Yellow K solution 1:100.

12 ccm. distilled water.

Of this solution, take 8 ccm. and pour over a sheet of optically parallel glass, about 4 x 5 inches.

In making flashlight exposures use about twenty-five times more flashpowder than for regular flashlight work.

❖ ❖ ❖

The Ansco Company has issued some very attractive booklets this spring, descriptive of their cameras, films, paper and other photographic supplies. The largest one, entitled "Ansco," treats of photography as a means of education, as well as a source of enjoyment for old and young alike. It contains a introduction by Elbert Hubbard, entitled, "Snapshots and Education," from which we have already quoted in these columns.

A smaller pamphlet is entitled, "The Negative of Photography," and relates to Ansco Film. "It's the Film that makes the picture" undoubtedly, as this pamphlet states.

The third is about Cyko paper, and "The Positive of Photography."

Any one or all of these pamphlets can be obtained by applying to the Ansco Company at its Home Office in Binghamton, N. Y., or at any of their various branches in the following cities: New York City, San Francisco, Boston, Cincinnati, Minneapolis, Toronto (Canada), London, England.

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We wish to give a word of praise in regard to the new D-Q developer made by Schering & Glatz. This developer has many improvements being non-poisonous, non-fogging, adjustable, that is, can be made rapid or slow, very sensitive to bromide and stable. We quote from their folder, giving the formula which applies to plates, films, gaslight and bromide paper:

Duratol will not cause physical discomfort. It can be used within a wider range of temperature than metol and give good results. It can be so diluted with water as to bring the time of development to over an hour and the plate or film shows not the slightest trace of fog. Its solution, kept in sealed bottles, will keep almost indefinitely. So will others. But the used Duratol solutions, or those improperly kept, have a lasting quality, which is striking in view of the large proportion of hydroquinone with which Duratol is always used. (See formula below.) And for this reason it is cheap, since (aside from its stability) it permits the use of a large amount of a cheap developer, hydroquinone, in combination with a small quantity of a higher priced one. Nevertheless, the metol quality is there, both in the negative and in the print —soft and harmonious tones, with depth and detail, and half-tones which not even pyro can surpass.

Duratol is a very controllable developer and very sensitive to bromide. It works "clean." A good quality of gaslight paper can be left in a D-Q solution for from five to ten minutes and still show perfect whites. In fact with some papers, development seems to proceed just so far and then stop. With certain glossy papers, potassium iodide is not necessary; others developed without iodide show abrasion marks, which are easily removed from the dry prints with a piece of cotton moistened with wood alcohol.

For plates, films, gaslight and bromide papers.

Factor 9 to 15, according to density and contrast desired.

Water	40 ozs.,	avoirdupois
Duratol	15 grs.	"
Soda sulphite, dry	1 oz.	"
Soda carbonate, dry or potash carbonate	2 ozs.	"
Hydroquinone	75 grs.	"

WANTED.—Snappy, "human interest" photographs for newspaper reproduction; unusual pictures of children and animals; unique seashore bathing scenes; exceptionally beautiful girls and women; "foolish season" photographs, with laughable or surprising touch; photographs specially suitable for any general American holiday. Prints must be clear and contrasty. Glossy, unmounted, black-and-whites preferred. We pay $2.00 to $5.00, depending on interest. Send stamps for return if not found available. NEWSPAPER ENTERPRISE ASSOCIATION, 102 N. Fifth Ave., Chicago, Ill.

The Photographic Times

SUBSCRIPTION RATES one dollar and fifty cents a year, payable in advance. Foreign Postage 50 cents, Canadian Postage 25 cents. Single copies 15 cents. Subscriptions to the *Photographic Times* received by all dealers in photographic materials in this and foreign countries, also the American News Co. and all its branches.

POSTAGE IS PREPAID by the publishers for all subscriptions in the United States, Hawaiian Islands, Philippine Islands, Guam, Porto Rico, Tutuila, Samoa, Shanghai, Canal Zone, Cuba and Mexico. For all other countries in Postal Union, except Canada, add 50 cents for postage. Canadian postage 25 cents.

CHANGE OF ADDRESS. When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent one week before the change is to take effect.

DISCONTINUANCES.—If a subscriber wishes his copy of the magazine continued at the expiration of his subscription, notice to that effect should be sent. Otherwise it is assumed that a discontinuance of the subscription is desired.

HOW TO REMIT.—Remittances should be sent by Draft on New York, Express Order, or Money Order, payable to order of *The Photographic Times Publishing Association*. Cash should be sent in registered letter.

CONTRIBUTIONS.—All literary contributions, correspondence, "Queries," etc., should be addressed to *The Editor;* all advertising matter to the Advertising Manager.

LETTERS should be addressed:

THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION,
135 West 14th Street, New York.

Classified Advertisements

Advertisements for insertion under this heading will be charged for at the rate of 25c a line, about eight words to the line. Cash must accompany copy in all cases. Copy for advertisements must be received at office one week in advance of the day of publication, which is the first of each month. Advertisers receive a copy of the journal free to certify the correctness of the insertion.

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Learn a Paying Profession

that assures you a good income and position for life. For 17 years we have successfully taught

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Photo-Engraving and Three-Color Work

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ILLINOIS COLLEGE OF PHOTOGRAPHY
967 Wabash Avenue, Effingham, Illinois

GOERZ LENSES and CAMERAS

High Grade European and American Outfits a Specialty
Lenses and Cameras Exchanged
ASK FOR UP-TO-DATE BARGAIN LIST
I invite correspondence on anything photographic
BUY FROM A RELIABLE INDEPENDENT DEALER
My name in the photo world is my guarantee

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PHOTO SUPPLIES NEW YORK CITY.

Learn PHOTO-ENGRAVING, PHOTOGRAPHY, COMMERCIAL ART. 32d year. BARTHOLDI'S TRADE SCHOOLS, 92 5th Ave., New York.

ROCK BOTTOM PRICES

ON CAMERAS, LENSES AND PHOTOGRAPHIC SUPPLIES

Why pay exhorbitant prices for your photographic accessories when you can obtain from us everything you need in your photographic work—whether amateur or professional—at greatly reduced prices.

New BARGAIN LIST just off press. Send for copy to-day

New York Camera Exchange 109 Fulton Street, N. Y.

BEST, EASIEST and CHEAPEST

method of treating prints to

PERMANENTLY PREVENT CURLING

Mailed for 35 cents

Address L. C. BISHOP, 513 Dean Bldg., South Bend, Ind.

Rossbach Art Co.

113 West 23rd St. :: NEW YORK

KODAK Developing, Printing, Copying and Enlarging for the Amateur and Trade

Copying of old photographs a specialty

SQUARE DEAL

Willoughby's Removal Photographic Bargain List No. 123 explains the SQUARE DEAL. Send Stamp.

WILLOUGHBY 810 BROADWAY NEW YORK

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

THE REASON.

The best finishers of Kodak work use Velox exclusively.

The reason for the above assertion is of a great deal of importance to the amateur who does his own finishing, as well as to the one who has the professional finisher do his work for him.

The position of the professional finisher is rather unique from the fact that he has but one thing to build his reputation upon, and that is the quality of his prints. To be sure, he must do good developing, but he does not make the negatives and must take them as they come from the amateur and produce the best possible prints from them. This he does on the paper—the one paper—that is made with special regard to the requirements of the average amateur negative—Velox.

If professional papers were suited to amateur work, the professional finisher would probably use them, but they are not. Professional papers are in a class by themselves and the professional photographer makes his negatives to suit that class of paper. The amateur, on the other hand, makes his negatives under all sorts and conditions of light and shade, which he is unable to alter; makes his exposures accordingly, and though the resulting negatives are of varying degrees of contrast, and they must of necessity be, there is a grade of Velox that will suit each one, and the resulting Velox print if properly made, is sure to be the best possible print from that negative.

It is quite plain then that Velox is the best paper for the amateur to use, because the finisher, whose reputation is based on the quality of his prints, finds it the best paper for his use, but there is still another point of view. If you send your work to a finisher, insist that he make your prints on Velox. There's only one possible reason for using anything else—the price.



Rose Mellow, made at 2 ft. 8 in., with Portrait Attachment.

CLOSE TO NATURE.

I will never forget a trip made to the woods with a friend of mine, one beautiful spring day. I wanted a few negatives of the first spring flowers, while he, having nothing better to do, consented to go along for the exercise and air, though he did take his camera just to be sociable and, as he said, to use if he saw anything really worth while.

Spring flowers didn't seem to be worth while, in his estimation, and he laughed at my Portrait Attachment and the stick I carried with the distances notched on it, but I was glad to have his company, so said nothing. He was the first to enthuse over the landscape as we came to the shore of a beautiful lake, three stately trees with a background of fleecy clouds, and a graceful curve in the shoreline taking his fancy. The negative was made, and the tramp continued along a beaten path to the spot where I expected to find the hillside a mass of bloom, and I was not to be disappointed. My Kodak was soon working at short range, the

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

Portrait Attachment allowing me to work at two feet, eight inches, and as I expected, my friend did not fail to see the beauty of that hillside of bloom. His camera did not allow him to work as close as he might have wished, but he was soon busy clearing a tiny stream of leaves and twigs that he might get a better view of the little water fall that was to be a part of his spring landscape.

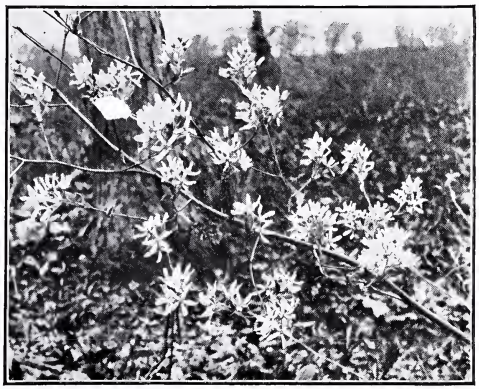
By stopping down his lens to get extreme sharpness and making an enlargement from his plate, he was able to show the flowers much as my Kodak and Portrait Attachment had seen them, but it was a round-about way, as he afterward admitted.

However, he enthused over my intimate little studies of spring flowers, and no doubt has made many of them himself since that time, for he has added a Kodak and Portrait Attachment to his outfit, and is very enthusiastic over the decorative value of flower studies where nature is the landscape gardener.



Rhododendrons, made at 2 ft. 8 in., with Portrait Attachment.

I find it very convenient to carry a stick or cane on which I have cut notches to indicate the distances at which the object must be from the



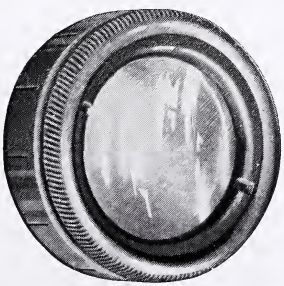
Shad Tree Blossoms, madeat 2 ft. 8 in., with Portrait Attachment.

Portrait Attachment, which is simply slipped over the lens of the Kodak.

As will be seen by the illustrations, these little nature studies not only add variety to an album of Kodak pictures, but each one is interesting in itself, and recalls the day spent in the open as nothing else can do.

If you are a lover of birds or animals, and have access to a zoological garden, try using a Portrait Attachment on your Kodak, where it is possible to get within three and one-half feet of the object. While the Portrait Attachment is primarily intended for portraiture, it may be used in photographing any small object where there is an advantage in getting it at close range.

Kodak Portrait Attachment, 50 cents.



Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

FIXING HINTS.

Kodak Acid Fixing Powders contain three distinct elements; a fixing agent, an acid or anti-stain agent, and a hardening agent, mixed in exactly the right proportions to prevent decomposition of the fixing bath and injurious action upon the photographic image, which is very liable to occur with acid fixing baths less scientifically compounded.

Dissolving these chemicals in water, according to the instructions, a fixing bath is formed which is ideal for Kodak films, plates, Velox or Bromide papers. When properly used, this bath prevents stains, hardens the film and fixes the negatives or print all in one operation.

It is advisable to use a good quantity of this bath in a large tray, as it can be poured into a jar after use and used several times. A good plan is to make a pound of the fixing powder into solution, a pound making 64 ounces or two quarts. This solution after having been thoroughly mixed may be kept in a couple of fruit jars. The half-pound package makes 32 ounces or one quart of solution. As a rough guide, 16 ounces of solution will fix six dozen 4 x 5 prints, and in the case of negatives, the bath may be used until it becomes discolored or fixing becomes noticeably slower.

In fixing Velox, as with all developing papers, it is advisable to use a larger tray for fixing than that used for developing, and a larger quantity of solution, as the prints should not be allowed to lie one on top of the other during the first few minutes of fixing, in fact they should be moved about occasionally during the entire time they are in the fixing bath, and this is best accomplished in a fairly large tray.

Yellow spots and stains on Velox and Bromide papers are generally caused by traces of developer left in the print, oxidizing and discoloring by being exposed to the air when the print is placed in the fixing bath. This is usually due to the print not being placed entirely under the fixing solution or floating to the surface after it has been placed under, and so being exposed to the air with the result just mentioned.

A good plan is to use a wooden paddle to pat the print under the fixing solution, or a stick with a tuft of cotton tied to the end, which may be used to press the print under the solution and hold it there. A fresh tuft of cotton should be used each time this method is used.

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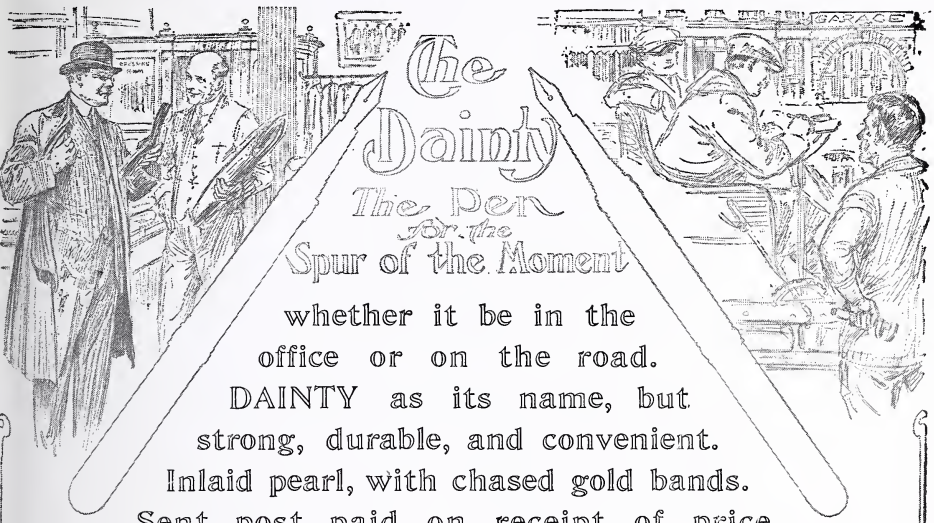
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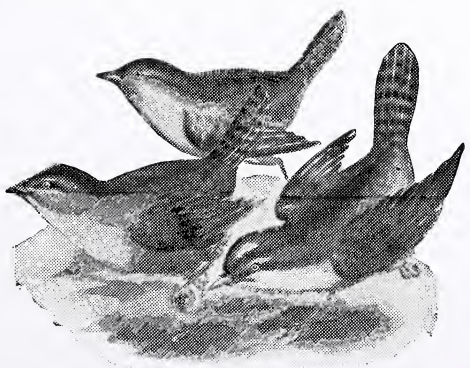
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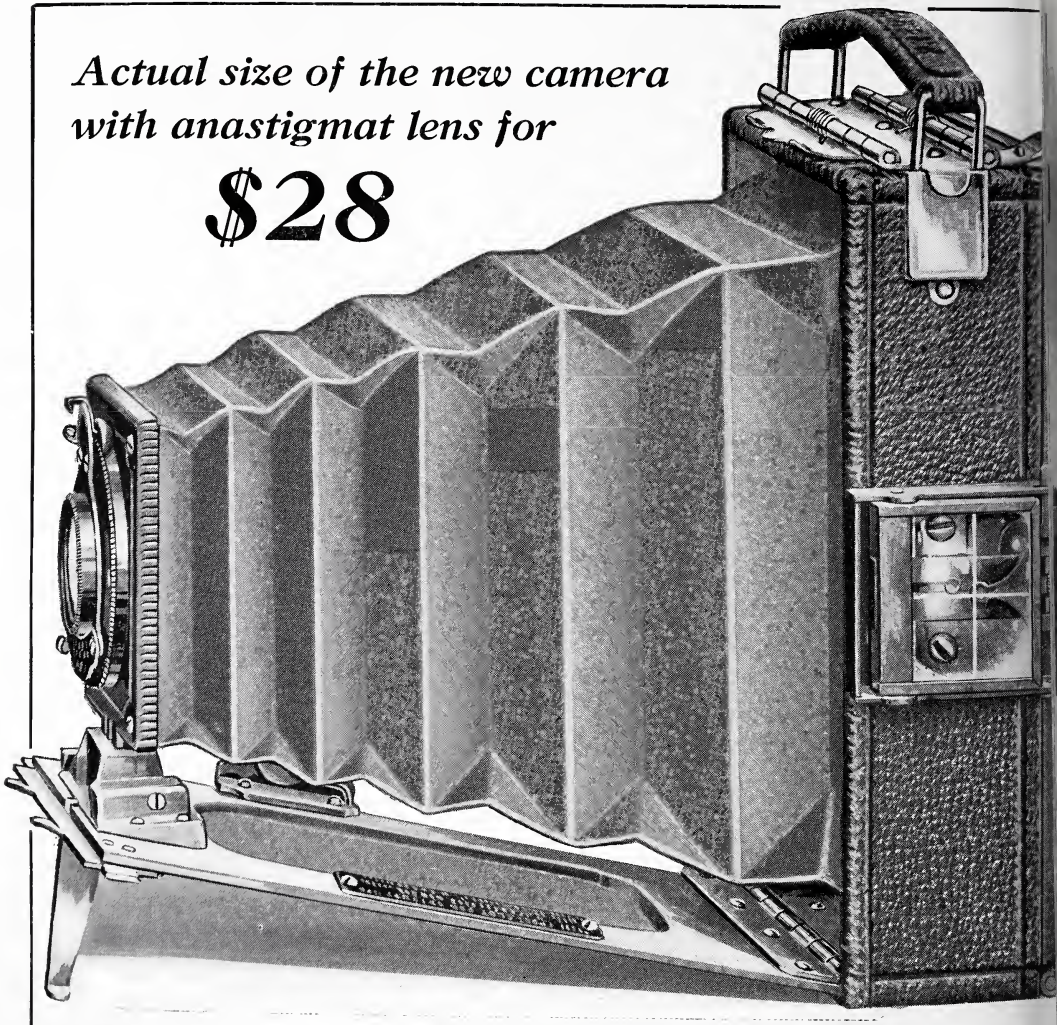
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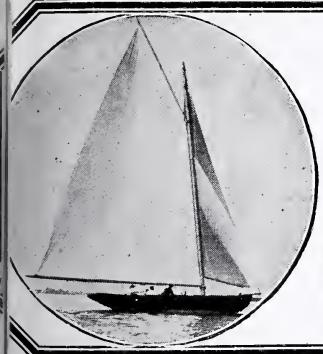
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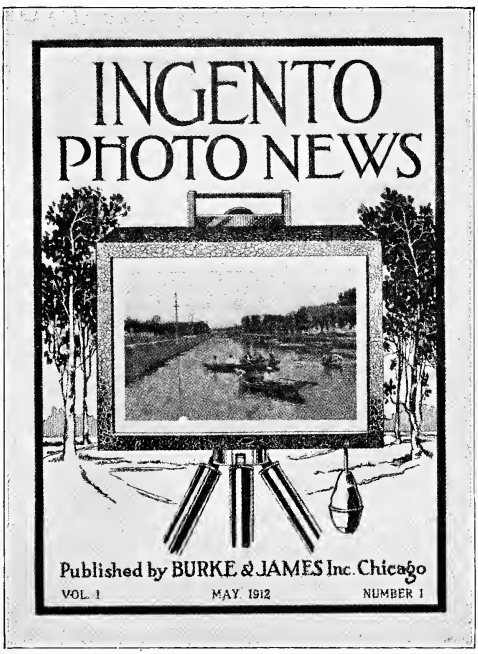
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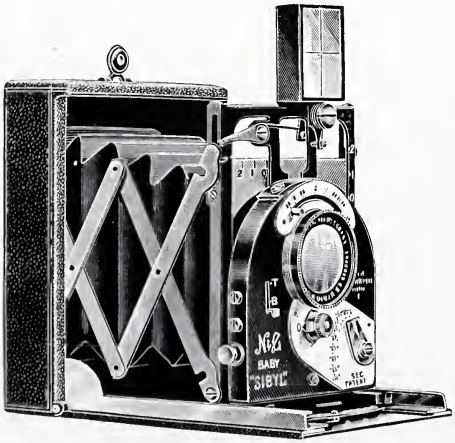
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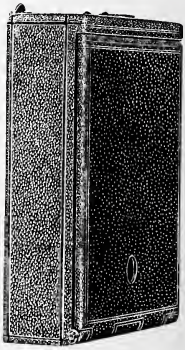


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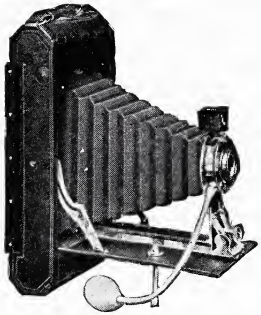
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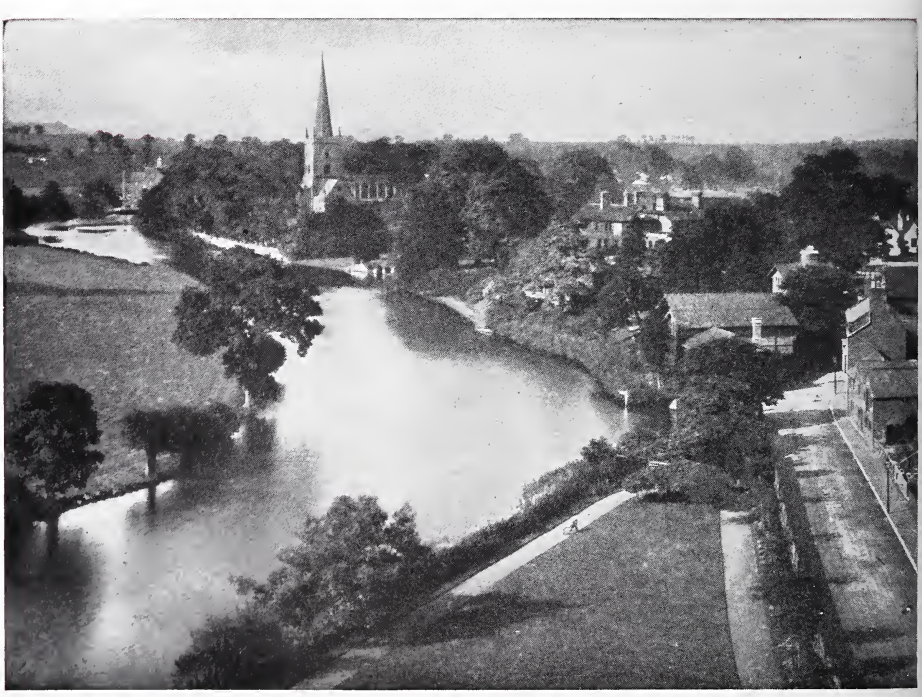
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IN THE SCOTCH HIGHLANDS — *Florence Maynard*

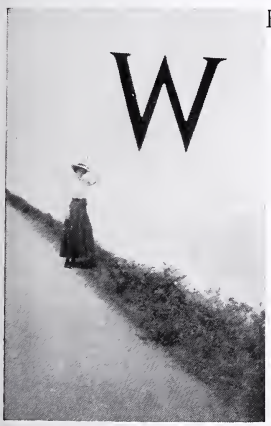
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VOLUME XLIV AUGUST, 1912 NUMBER 8

A FEW MORE PICTURES BY MISS MAYNARD



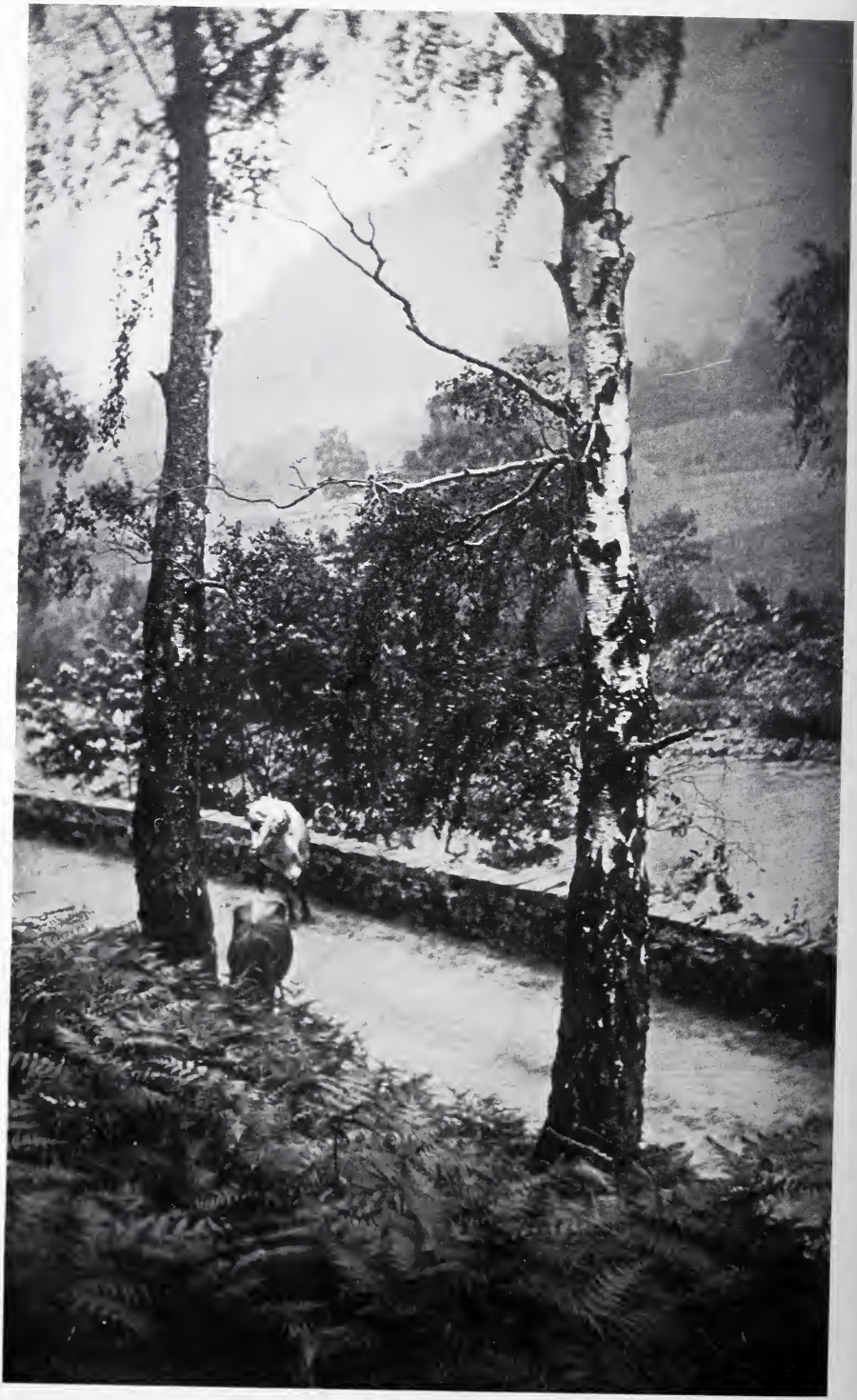
WE ARE very happy to be able to secure for our readers this month a few more pictures by Miss Florence Maynard for presentation in THE PHOTOGRAPHIC TIMES. Our readers will remember the very beautiful pictures by her which we reproduced in these pages several months ago, accompanied by some account of Miss Maynard and her work.

The present illustrations are fully equal to those which we used at that time, though they are all landscapes, instead of figures or portraits. Miss Maynard shows her versatility by her choice of subjects, as well as by her treatment of them. The present pictures are all of foreign subjects, and cover a wide range, representing a characteristic scene in Venice on one hand and three most attractive examples of her work in Scotland and in the Scottish Highlands.

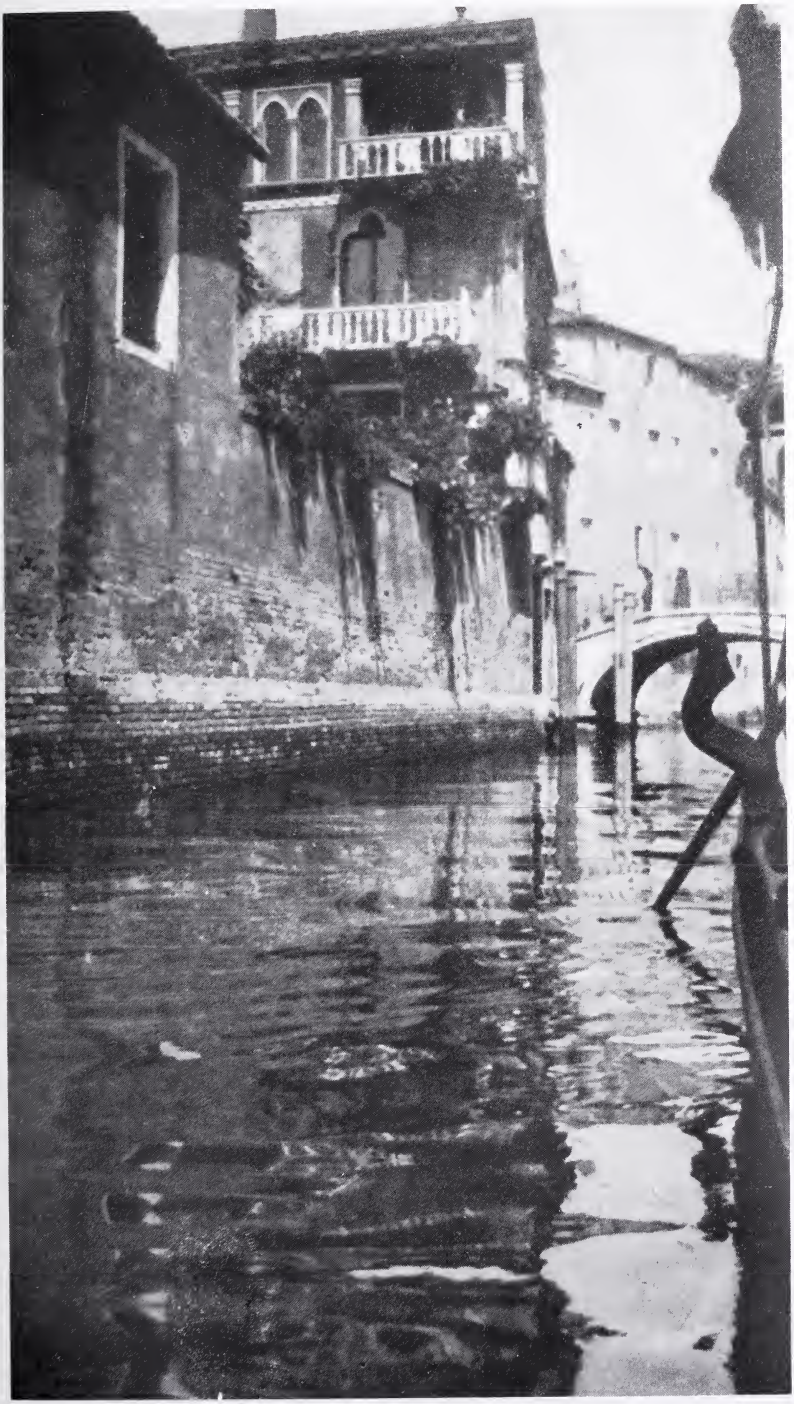
Miss Maynard writes that her method of procedure has not materially changed; that she still uses a hand camera in the first instance for securing a subject from nature, and that then she enlarges from the original on various mediums, according to the character of the subject which she is treating.

The pictures which we reproduce herewith, were made from smooth surface prints, in order to secure a better reproduction. She has rendered these subjects in enlarged form on matt surfaced papers, and in tints to suit the originals.

Since sending us the pictures which we reproduced in an earlier number of THE PHOTOGRAPHIC TIMES, Miss Maynard has removed from her Windsor Avenue Studio to Swarthmore, Pa. We shall hope to receive some additional examples of Miss Maynard's work from her new studio, where we wish her all the success which she so richly deserves.



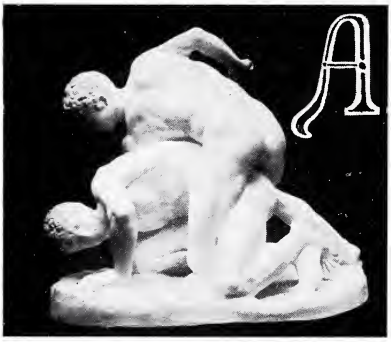
BIRCHES IN GLEN MORISTON, SCOTLAND — *Florence Maynard*



VENICE *Florence Maynard*

THE SUBORDINATION OF THE PRESENCE OF CONSCIOUSNESS IN THE PHOTOGRAPHY OF THE NUDE

BY DR. R. W. SHUFELDT, C.M.Z.S.
Corr. Membr. Anthro. Soc. of Florence, Italy, etc.
With Illustrations by the Author.



THE WRESTLERS

ASK any one, who has made the attempt to secure photographs of the nude human figure from life, as to what he or she considered to have been the most difficult matter to overcome in such a procedure, and the answer, nine times out of ten, will be that it was found almost impossible to have the model appear unconscious at the time the exposure of the plate was being made.

After some of my attempts in this direction came to be published and more or less known, this was the point, above all others, upon which I was questioned by those employing the photographic camera in securing studies of the human figure from life. "How is it that you succeed in getting your models to appear so absolutely unconscious—in so far as the slightest trace of it being discernable in the pose or picture is concerned—in all of your results? Here are dozens upon dozens of photographs you have taken and shown us, and in not one of them is it possible to trace the slightest thing in the person or child taken, indicating the presence of that well known awareness of being naked, and not only naked, but of being taken in that state in any particular case, and the fact being perpetuated by such a truth-telling process as we have in a perfect photograph of the subject."

Well, the truth is that if anything of the kind is ever discovered by me in any of my photographs—and it does not happen once in a hundred times—I immediately destroy the negative exhibiting it and all the photographs ever made from it. This should be done by all means, as there is no single feature which, if present, will incite more severe adverse criticism of the photographer's work, in studies of the nude taken for any purpose whatever, than to have the model appear in any way conscious of the fact that he or she is being taken. The overcoming of this, in any particular branch of scientific and artistic photography, constitutes one of the greatest successes in the case of any particular worker in it.

The likelihood or the danger of its occurrence varies widely. It is not only varies with respect to the age and sex of the subject; but it varies with respect to the psychology of the person being photographed.

In my time I have known photographers to give up the important work of the photography of the nude figure from life entirely, simply for the reason



GRIEF (Fig 1) *Dr. Shufeldt*

that they could not succeed in having their subjects appear entirely unconscious of the fact that they were being photographed nude.

Several years ago I had a young French girl from Paris among my models, and in her case I never succeeded in securing a single photograph but that this very undesirable feature was present in it. At last, after a few pronounced failures—and my having recognized the cause of the trouble—I gave it up, and I destroyed every trace of my failures. Models of the most desirable class were to be had by the score, and my time was too valuable to be expended upon such unprofitable material. When a woman has habitually posed for the entire figure for photographs of a class that clean-minded people have no earthly use for, she is generally unfitted as a subject for the art-photographer, the ethnologist or the anatomist. Such photographs may be useful and valuable to the students of psychopathia sexualis, and in such photographs we not only look for it, but it makes no difference if it be present in them,—indeed it is quite natural that it should, in the majority of cases, be there. During the times of which I write, I was not working along these lines.

It is extremely rare, in the case of photographs of nude babies up to a certain age, to note any expression of consciousness, either in the facial features or the pose, indicating that they are aware of being photographed. There are two very evident reasons to account for this, in as much as the child knows nothing of the use of the camera or the making of photographs; and, moreover, at this tender age, its mind is not influenced by any other emotion than modesty in its truest and simplest manifestation. This is all that it is necessary to state upon this part of the subject here, for to say more might carry us far afield in the domain of infantile psychology.

As a matter of fact, in the case of the photography of nude babies—apart from all other considerations—we are more concerned with the matter of securing normal and pleasing baby poses and expressions in the little faces indicative of health, contentment and other characteristics which draw us toward such pictures. I can not imagine such a thing as the photograph of a year old



THE SULTANA (Fig. 2) *Dr. Shufeldt*

baby or less having a facial expression indicating that it was fully aware of the nature of the ordeal to which it was being submitted.

As children grow and pass through all the various stages of life, the study becomes more and more fascinating and is ever one of importance, as I have elsewhere pointed out. In youths and in little girls of various ages, it not only depends upon the fitness of the photographer for such work to achieve success; but still more on the training and nature of the insight the subject has had with respect to the sexual side of its mentality and organization. If it has been instructed strictly along normal and natural lines in such particulars, and its parents and other instructors have not ruined its mind for all time by impressing upon it the fatal and hideous untruth that the very thought of certain parts of its body is foul and shameful, then, as I say, if this be *not* the case, the task of the photographer of the nude form during adolescence and on, is one full of interest and beauty.

In the case of adults, it has been my experience to find members of the male sex, when posing for photographs of the figure, appear conscious quite as often as do females; and I am of the opinion, that the manifestation of such consciousness is entirely due to the nature of the psychosis of the subject, and to the understanding of the photographer.



A SUN BATH (Fig. 3) *Dr. Shufeldt*

This particular form of self-consciousness may exhibit itself in several ways, and to various extents. In young subjects it usually consists in their assuming a variety of poses, which are often associated with certain expressions of countenance, the two being indicative of the shame felt by the model. When this is the case, one may be sure that vicious training is the cause of it,—the inculcation of false ideas by parents and teachers,—and the depriving the young person of a class of knowledge which has resulted in perverting his or her mind to such an extent as to injure the organization.

In some cases, where the young model is of value, all this may sometimes be rectified, and it may be worth the while of the photographer to undertake it. Be very certain, however, that you possess, in a marked degree, all the qualifications to do this, or else you may make—probably will make—a sorry failure of the attempt.

With respect to adults, they rarely gave me any trouble in this matter, and in my long experience in the photography of the nude, I recall but few failures. When I found that a model—either male or female, was quite hopeless in this regard, I usually took occasion to discourage their coming to my studio, and they passed out of the field of my activities, thus affording time and opportunities for others not so afflicted.

Both psychologically and constitutionally I have always felt myself to be unusually favored in possessing the necessary qualifications to deal successfully with difficulties of this kind—and that, too, with subjects of all ages,

both males and females. The only mechanical aids that I employ are a very quick, reliable plate; a first class, absolutely noiseless shutter, and six or eight feet of tubing connecting my bulb with the mechanism of the latter. Many of my most successful results have been largely due to the use of these adjuncts and appliances.

It goes without the saying that the surroundings and the light—either from the sun or the flash—must all be of a kind to second your endeavors in the highest possible degree. This applies with especial pertinence to the photography of the nude *en plein air*. Here the danger is—and particularly in the case of female models—that they exhibit any concern or fear of what they are exposing themselves to, and that these emotions appear in any way in the resulting photographs. This can only be overcome by your own fearlessness, adroitness and the prompt and correct handling of every requirement involved in the situation. I have taken a very large number of photographs of young women, who have posed in the "altogether" for me, within less than a pistol shot of City Hall, New York City, in broad daylight, and it was the rarest occurrence to score a failure. But I was simply obliged to have the illustrations for my scientific or art work, and the only way to obtain them was to go about it in a matter-of-fact sort of way.

For the rest, I fear no detailed instructions as to how to proceed in such undertakings, however elaborate I might make them, will be of the slightest assistance. To be successful, you must fully know men and women; you must know exactly *what you want,* for, unless you do, your models will lose confidence in you at once, and then you will promptly lose your models.

It is quite as difficult to get men to pose for you as those of the other sex,—often more so.

I have known of many failures on the part of the most accomplished photographers due entirely to the fact, that they were wedded to the idea that all female art models were morally depraved.

If you think that, you are mistaken—very much mistaken—and if you think that, it will exhibit itself in your attitude toward your helpers, and your work will fail as it deserves to fail. Better reverse the camera and devote yourself to entirely different subjects,—inanimate and unfeeling ones.



HAND CAMERA EXPOSURES OUTDOORS

BY PHIL M. RILEY.



JUST what exposure to give under varying circumstances is the most perplexing problem which photography presents to the average beginner. It is really the most important one, too, because if exposure be correct, normal tank development will take care of itself, and that means a successful negative every time. Exposure is the thing most important to understand, not manipulations of the developer, and a very little study will make its underlying principles fully understood.

Absolutely accurate exposure seldom occurs, nor is it necessary, since the average plate or film has a latitude of about ¾ to 2, assuming that the correct exposure is 1. It is evident, though, that this varies somewhat according to speed and color sensitiveness.

Of course it must be assumed at the outset that there is the record negative and the idealized negative. The former records the exact gradations of light and shade as they existed when the exposure was made; the latter is a pictorial record not only of the scene itself, but of the maker's mental impression of it. To put his individuality into a photograph, the worker must take some liberties and vary from the normal in exposure, focus, development and printing, but before he can do so intelligently, he must first have a working knowledge of normal procedure. To expose correctly is, therefore, an important requisite to pictorial as well as to commercial photography, and in both, the assurance and economy of this knowledge are alone worth the small amount of study required to master it.

The greatest accuracy is always secured by measuring the light value of any subject just before exposure with an actinometer, and comparing this with a table of ratios for different subjects and plates. This consumes a certain amount of time, however, and is not necessary except when the circumstances are unusual, because the ordinary conditions of outdoor photography have come to be fully understood and can easily be expressed by a few ratios not difficult to carry in the mind, with which it is possible in the field to calculate the proper exposure after a hasty analysis of the conditions.

In considering the exposure for any particular subject there are four fundamental considerations:

1. Plate speed.
2. Subject.
3. Light.
4. Diaphragm.

It has seemed advisable to place the speed of the plate first because so many camerists use one particular brand of plates or films for most of their work, so that this is a factor which can often be omitted from consideration most of the time. As sensitive materials vary greatly in speed we have what may be termed fast, medium and slow plates and films, and the exposures must naturally vary with their sensitiveness. With the data furnished by manufacturers and a few comparative experiments it has been an easy matter to represent the principle American plates and films by a series of ratio numbers corresponding to their relative sensitiveness. The sensitive materials most commonly used at present are all of very nearly the same speed and so are placed in Class 1. The others range from Class ⅓ to Class 190 according to the relative increase or decrease of exposure required when they are used. Thus, if an exposure is known for any particular plate it is easy to determine what it should be for a different brand.

Experience, nothing else, has been the guide to the classified list of subjects in the following exposure table. The present arrangement seems to embrace the findings of most practical workers and has in every case given satisfaction to the writer. An average landscape with medium foreground, such as nine out of ten amateur photographs consist of, has been taken as a basis and represented by the ratio 1. Other ratios opposite the various classifications represent th erelative increase or decrease of exposure. For such a subject the correct exposure in summer sunlight at midday with U. S. 4, or *f*8 diaphragm is 1/50 second. From this as a basis the whole table which follows has been worked out.



THE GLEANER *J. R. Peterson*

In determining light intensity there are five fundamental considerations:

1. Latitude.
2. Atmosphere.
3. Weather.
4. Month.
5. Hour.

Exposures increase the higher the latitude, and *vice versa*, so that they are more in the temperate than the torrid zone. The figures here are suitable for New England, the Middle Atlantic States and similar latitudes. No further consideration seems necessary.

Atmosphere, too, need not be given much thought as its effect is seen but little except as a hazy sun, better considered as a condition of the weather. When there is a real fog or when toward night haze or smoke changes the color of light to yellow or even red, the actinic quality of the light is so uncertain that it is really necessary to use an actinometer to ensure success.

From a photographic standpoint weather refers to the clouds or haze which obscure the sun, and experience has shown that five classes ranging from one to four in light value cover the conditions under which it is possible to make successful photographs. In the second section of the following exposure table subject and weather have been treated together and in the first vertical column in bold face type is shown the relative exposure ratio for various subjects and opposite each the ratio of increase for all conditions of weather. The fundamental ratios here are all in bold face type.

Everybody knows that light is more intense the higher the sun, since there is a much less distance of the earth's atmosphere through which the light must travel. As the altitude of the sun varies with the month of the year and the hour of the day, it follows that these two affect exposure. At noon, exposures vary from a ratio of 1 in the summer to 4 in winter, increasing toward morning and night. In the third section of the following table the relative intensities of light at different times are shown at the intersection of vertical and horizontal columns starting from noon in the month of June.

As the lenses in most hand cameras work at U. S. 4 or *f*8 it has seemed wise to tabulate the exposures on that basis. When other diaphragms are used it will be necessary to increase or decrease the exposure according to the relative value of the aperture.

The fourth and last section of the table serves only for ready reference in the field to avoid multiplications. When a plate or film in Class 1 is being used it is necessary only to find in the second and third sections two ratios which refer to the existing conditions of subject and weather, month and hour, then find these in the guide columns, vertical and horizontal of the fourth section, and at the intersection of the vertical and horizontal columns will be found the correct exposure. Thus an open seascape in very dull light at four p. m. in May gives the ratios ½ and 2, meaning that the subject and weather demand dividing by two the 1/50 second standard, and that the light intensity of the month and hour require a two-time increase. This is easily calculated mentally or found in the last table to be 1/50 second.



IN THE HAYFIELD *J. R. Peterson*

All this may seem a little complicated at first, but it requires only a slight familiarity to simplify the whole matter. One learns very rapidly to classify subjects as they are found and to know the proper exposure ratios to apply in any except unusual conditions.

In judging the resulting negatives, it should not be forgotten that every object reflects light in some degree, however slight, so that a perfect negative presents some degree of opacity over its entire surface. Clear glass or film always indicates under-exposure.

PLATE SPEEDS

CLASS ⅓.

Lumière Sigma
Lumière Non-Halation Sigma

CLASS ¾.

Kodak Speed Film
Premo Speed Film-Pack

CLASS 1.

Ansco Film
Cramer Crown
Cramer Crown Non-Halation
Cramer Instantaneous Iso
Cramer Inst. Iso Non-Halation
Cramer Isonon
Hammer Special Extra Fast
Kodak N. C. Film
Kodoid
Premo Film-Pack
Seed 27
Standard Imperial Portrait
Standard Polychrome
Stanley
Vulcan

CLASS 1¼.

Cramer Banner X
Cramer Banner X, Non-Halation
Hammer Extra Fast
Hammer Extra Fast Ortho
Hammer Non-Halation
Hammer Non-Halation Ortho
Seed Non-Halation
Seed C Ortho
Seed L Ortho
Seed Non-Halation Ortho
Standard Extra
Standard Orthonon
Seed 36X

CLASS 1½.

Lumière Blue Label
Lumière Ortho A
Lumière Ortho A Non-Halation
Lumière Ortho B

CLASS 2.

Cramer Medium Iso
Cramer Trichromatic
Cramer Medium Iso Non-Halation

CLASS 2½.

Cramer Anchor
Hammer Commercial Ortho
Lumière Panchro C
Seed 23
Hammer Fast

CLASS 5.

Cramer Commercial
Hammer Slow
Hammer Slow Ortho

CLASS 10.

Cramer Slow Iso
Cramer Slow Iso Non-Halation

CLASS 190.

Lumière Autochrome

SUBJECT AND WEATHER

VIEW	Bright Sun	Hazy Sun	Higher Clouds	Dark Clouds	Very Dark Clouds
Blue sky and white clouds, snow scenes without foreground	1/16	3/32	1/8	3/16	1/4
Open seascapes; very distant landscapes; snow scenes with very light foreground	1/8	3/16	1/4	3/8	1/2
Landscapes without foreground; dark clouds; average snow scenes; beach and harbor scenes	1/4	3/8	1/2	3/4	1
Landscapes with light foreground; snow scenes with great contrast; river views; figures in landscape; light buildings and monuments; wet street views	1/2	3/4	1	1½	2
Average landscapes with medium foreground; sunny street scenes; objects 30 or more feet distant	1	1½	2	3	4
Landscapes with heavy foreground; trees or buildings; brook views; street views in shadow	2	3	4	6	8
Outdoor groups in the shade; red brick and dark buildings; dark foliage; very near objects	4	6	8	12	16
Outdoor portraits in the shade; streams and ravines shaded by trees	8	12	16	24	32

MONTH AND HOUR

Month	A. M. / NOON / P. M.	11 / 1	10 / 2	9 / 3	8 / 4	7 / 5	6 / 6
June	1	1	1	1	1½	2	2½
May July	1	1	1	1½	2	2½	3
April August	1¼	1¼	1½	2	2½	3	
March September	1½	1½	2	2½	3		
February October	2	2½	3	4			
January November	3	4	5				
December	4	5	5				

EXPOSURES IN SECONDS

	1/16	3/32	1/8	3/16	1/4	3/8	1/2	3/4	1	1½	2	3	4	6	8	12	16	24	32
1	1/800	1/512	1/400	1/256	1/200	1/128	1/100	1/64	1/50	1/32	1/25	1/16	1/12	1/8	1/6	1/4	1/3	1/2	2/3
1¼	1/640	1/400	1/320	1/200	1/160	1/100	1/80	1/50	1/40	1/25	1/20	1/12	1/10	1/6	1/5	1/3	2/5	3/5	4/5
1½	1/512	1/320	1/256	1/160	1/128	1/80	1/64	1/40	1/32	1/20	1/16	1/10	1/8	1/5	1/4	2/5	1/2	3/4	1
2	1/400	1/256	1/200	1/128	1/100	1/64	1/50	1/32	1/25	1/16	1/12	1/8	1/6	1/4	1/3	1/2	2/3	1	1 1/3
2½	1/320	1/200	1/160	1/100	1/80	1/50	1/40	1/25	1/20	1/12	1/10	1/6	1/5	1/3	2/5	2/3	4/5	1 1/5	1 3/5
3	1/256	1/160	1/128	1/80	1/64	1/40	1/32	1/20	1/16	1/10	1/8	1/5	1/4	2/5	1/2	4/5	1	1 1/2	2
4	1/200	1/128	1/100	1/64	1/50	1/32	1/25	1/16	1/12	1/8	1/6	1/4	1/3	1/2	2/3	1	1 1/3	2	2 2/3
5	1/160	1/100	1/80	1/50	1/40	1/25	1/20	1/12	1/10	1/6	1/5	1/3	2/5	2/3	4/5	1 1/3	1 3/5	2 2/5	3 1/5
6	1/128	1/80	1/64	1/40	1/32	1/20	1/16	1/10	1/8	1/5	1/4	2/5	1/2	4/5	1	1 3/5	2	3	4

ON A NEW DEVELOPER, SULFINOL

BY J. DESALME.

(A Paper read before the French Photographic Society.)

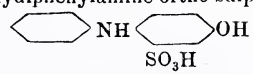
AT the International Congress of Photography held at Brussels in 1910 I showed in the course of a paper that the physico-chemical study of the action of developers leads one to regard developing agents as chemical compounds possessing affinity for OH ions.

Among these bodies are the organic substances capable of becoming converted, under the action of the OH ions, into substances possessing two double links in the ortho or para position.

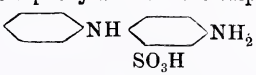
Among other new compounds, there were indicated several derivatives of diphenylamine, namely, par-amido-par-oxydiphenylamine, di-amido-oxydiphenylamine, and tri-amido-diphenylamine. The interest in respect to these compounds lies in the fact that these bodies are the leuco derivatives of indophenols, indoanilines, and indomines, respectively. Development converts them by oxidation into these colored bodies, but sodium sulphite restores these latter to their original colorless state.

The developers of the diphenylamine series above referred to possess extremely slight solubility in solutions of soda sulphite. With a view to the removal of this drawback I have studied their sulphonic and carboxyl derivatives, which also possess reducing properties, viz.:—

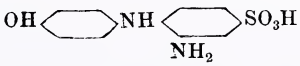
Para-oxydiphenylamine-ortho-sulphonic acid.



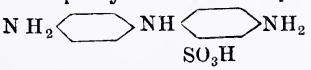
Para-amido-diphenylamine-ortho-sulphonic acid.



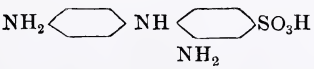
Para-oxyortho-aminodiphenylamine-para-sulphonic acid.



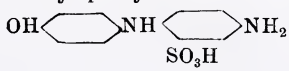
Para-diamino-diphenylamine-ortho-sulphonic acid.



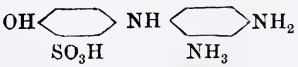
Ortho-diamino-diphenylamine-para-sulphonic acid.



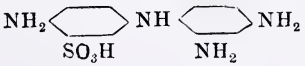
Para-amino-para-oxydiphenylamine-ortho-sulphonic acid.



Ortho-para-diamino-para-oxydiphenylamine-meta-sulphonic acid.



Ortho-para-triamino-diphenylamine-meta-sulphonic acid.





THE FISHERMAN

Of these numerous bodies, one, para-amino-para-oxydiphenylamine-ortho-sulphonic acid, has been found to possess properties which recommend it for use in practical photographic work. The material itself was obtained from the manufacturers, La Société des Matières Colorantes de Saint Denis, 105, rue Lafayette, Paris. This compound, which I name "Sulfinol," in order to recall its origin, is a white powder slightly soluble in water, very soluble in carbonate of soda and in alkaline solutions. It is sparingly soluble in alcohol, insoluble in ether, chloroform, and benzole.

The alkaline solution of "Sulfinol" when treated with sodium hypochlorite or hydrogen peroxide yields a very intense and characteristic violet color which slowly disappears on addition of soda sulphite. This developer gives soft negatives of good gradation and clear shadows. Its use is particularly of advantage in the development of bromide papers and enlargements.

For this latter purpose it possesses a further good feature in the fact that it is slow in action, the image appearing after about 3 minutes, gaining in strength up to 4 minutes and being finished in from 7 to 8 minutes. As the developer is very sensitive to the action of potassium bromide this time can be greatly increased. I have developed enlargements for as long as 20 minutes without any sign of staining of the highlights.

Also the color of the reduced silver is a warm brown and corresponds, in the case of certain papers, to that of a Conté crayon, thus rendering retouching extremely easy. The bath employed for the development of bromide papers is as follows:

Sulfinol	10 to 15 gms.
Soda sulphite, cryst.	40 to 50 "
Soda carbonate, dry	20 to 30 "
Water	1,000 ccs.

Dissolve the sulphite and carbonate in a little water, then add the "Sulfinol" and dilute to 1,000 ccs.

Potass bromide up to 0.5 gm. per litre may be added for the purpose of prolonging the time of development.

For the development of negatives, "Sulfinol" may be used in conjunction with hydroquinone and then yields excellent negatives of good gradation without excessive contrast. The formula is as follows:—

Sulfinol	10 gms.
Hydroquinone	5 "
Soda sulphite, cryst.	50 "
Soda carbonate, dry	50 "
Water	1,000 ccs.

This bath may also be used for papers.

The developing solutions of "Sulfinol" keep very well even when in constant use: the slight color which they assume in no way affects the purity of the highlights, whilst it can be largely removed by addition of fresh soda sulphite. The developer has no action on the skin nor does it stain the latter.

NOTES AND NEWS FROM LONDON

BY F. C. LAMBERT.

Care of Lenses.



COMPARATIVELY few workers are fully alive to the fact that a good modern lens is a delicately adjusted piece of apparatus. It may be damaged by careless rubbing, cleaning, etc., or a fall may put its components out of their correct relative position or induce strain. It is quite a fallacy to suppose that because a lens that has had a fall and escaped fracture is "no worse." This may or may not be the case, but mere inspection tells us very little on that score. Some of the glass used in modern lenses is far more easily scratched than ordinary crown or flint, such as was used in former days. There is no greater mistake than for the amateur to think he can polish a lens by mere rubbing. He is far more likely to diminish its polish. The less the glasses are rubbed with anything at all the better, provided they are kept free from dust, grit, or rain drops. A clean feather will remove dust, etc. A drop of pure alcohol and a tiny bit of quite clean old silk gently used will remove rain drop markings.

The lens shade or lens hood.—I have recently had several queries on these two topics, *i.e.,* the lens shade and lens hood—virtually the same thing in action—which show that there is a widespread misunderstanding on the matter. One querist asserts that he gets a brighter screen picture without the lens shade. Doubtless he is confusing contract, *i.e.,* true *brightness* with general *lightness*. A numerical example will make this clear in a moment. Suppose we have a subject whose light and shade ranges from 1 to 10 when seen on the ground glass, and the lens hood or shade cuts off all light except that required to form the picture.

Now suppose we remove the shade and admit 5 degrees of light scattered all over the plate. Our screen picture will now range from 6 to 15. It is, of course, lighter all over, but its contrast of 6 to 15 is only 1 to 3—or thereabouts—while without this scattered light it was 1 to 10.

But the proof of the photographic pudding is primarily in the negative. Take two negatives, one with and one without an efficient lens shade, and develop them both so that the highlights are the same and print them. You will not need any more arguments to show that the shaded lens gives the longer and altogether more pleasing range of tonal gradation.



ON GUARD *A. J. Swanson*

Interior photography.—I do not know why domestic interior photography does not attract more workers than it does. The subject matter is far more varied than in many other more popular branches of work; and it does not present any difficulties which cannot be overcome after a very little practice. Mr. Bennett quite recently devoted an evening at the R. P. S. to dealing with minor difficulties in architectural work and gave several good hints that are very well worth being repeated.

For instance we may be using a camera with loose panel fronts. By piercing the panel (for the lens), nearer one end than the other we get a simple means of raising or lowering the lens by merely reversing the top and bottom of the panel without altering any other part of the camera. This, combined with the rising front movement, means an extra range of rise and fall of the lens which at times may be very valuable.

Working in confined situations.—One of the everyday troubles in domestic interior work is the difficulty of getting the camera far enough away from the subject. To get behind the camera for focusing, etc., often means a loss of 2 or 3 feet. Why not push the camera right up against the wall? How are we to know that the camera is then pointed truly at the selected subject? First let me mention Mr. Bennett's dodge. To the corners of the ground glass he fixes bits of white gum-paper. Now on removing the lens and placing the edge where the limits of the selected subject are he looks through the lens flange opening in the front of the camera and sees the bits of white paper, when the camera is correctly placed. As it is as well to have more than one string to one's bow I give a few tips of my own. If the ground glass is a few inches

—say a foot—from the wall one can generally hold a hand mirror against the wall and see the reflected image of the ground glass when viewed from the side of the camera, *i.e.,* with the back of one's head towards the subject. Of course the focusing cloth has to envelop the mirror, camera, and worker's head. For architectural work a square body, full sized bellows, is certainly advisable. That being the case here is another good dodge. In the *middle* of and at the *top* of the back body and also of the front part of the camera insert a couple of small steel eyes such as are used for hanging pictures. When the view has been selected and arranged in the usual way take a sight through the two eyes noting the object thus seen—say a small picture on the opposite wall. When the camera is pushed back up against the wall, retire to the sighted object (*e.g.,* picture), when with the back of the head against the picture we look through the two eyes which should again be in line with the picture. A tiny bit of looking glass, an inch square, put flat up against the back "eye," will often show a spot of light if we hold up a bit of white paper with a hole in it in front of our eye and look through the hole.

Another dodge is to take note of the object occupying the center of the ground glass. Then fix a spot of gum-paper on this central part, remove front and back lenses, open out the stop and look through the lens diaphragm from the position of the noted object when the white spot of paper should be seen. This is easier to work than Mr. Bennett's four corner similar plan. But in both cases we have difficulty of seeing anything at all inside a dark camera if the apartment is at all dark.

Mr. Bennett's dodge to prevent the tripod points slipping is to use three flat laths of thin wood jointed together at one end. The tripod points are received in holes along the laths. The objection to this plan is weight, and fragility; and a touch may upset the tripod.



THE WOES OF THE PRESS PHOTOGRAPHERS

BY HENRY F. RAESS.



THE May number of THE PHOTOGRAPHIC TIMES contained an interesting story showing the everyday life of the newspaper camera wielders.

Since the above account was written the New York *World* of May 8th, 1912, prints a news item telling how Wade Mountfort, Jr., recovered damages from Whitney Warren on account of an assault which took place in Newport last summer.

Shortly before Wade's troubles, "Dick" Sears of the Boston *American* had a similar experience in which he recovered damages to the extent of $400. The judge in deciding the case said that a person had a right to photograph another on the public highway provided he did not approach too close.

This was an important decision so far as it relates to Newport, which is society's Mecca and consequently attracts the photographers. As Newport almost wholly exists for and because of the wealthy people who flock there during the summer season, the natives bow and scrape and worship the very ground society people walk on. The result is that Newporters and especially the police, are ever ready to obey their slightest wish, and as the photographers are considered a pest which should be suppressed, the life of the camera men has never been a bed of roses in Newport.

Hounded and persecuted by both society and the police the above judicial decision and the finding shows to a class of hard working people that they have some rights.

The strange thing about the whole matter is that under certain other conditions and in almost any other place than Newport, these same society folks do not object to the camera.

THE SPEED OF A SHUTTER

WILLIAM H. BLACAR.

IN all the discussions of the speed of shutters I have never seen the question raised as to whether the curtain of a focal-plane shutter traveled at the same speed through the whole time of the exposure.

When we accidentally let go of a spring window shade we notice that it appears to go much faster at the top than when at the bottom. Having a curiosity about this I procured a focal plane shutter, and with the shutter I used and the size of opening and the tension I used I found that when the slit was half an inch on to the plate that it was traveling at the speed of 1/160 and

when it had traveled three inches more that it was going at the speed of 1/200.

This makes a gain in speed of 25% in three inches movement of slit.

We speak of a focal plane as going at the rate of 1/2000; if it were as my tests indicate it might be 1/2000 at bottom of the plate (as it stands in the camera) and a rate of 1/1600 at the top. So that one part of the plate gets 25% more light than the others, but I never heard any complaint of the results on the negative.

Now if the loss of 25% of light makes so little difference on the negative, then would it not follow that the same amount of 25% of loss due to the opening and closing of the leaves of a between-the-lens shutter would also be not serious.

I wish that some one would take up this experiment and see if their results agree with mine.

PHOTOGRAPHED

For years, an ever-shifting shade
The sunshine of thy visage made;
Then, spider-like, the captive caught
In meshes of immortal thought.

E'en so, with half-averted eye,
Day after day I passed thereby,
Till suddenly a subtler art
Enshrined thee in my heart of heart.

—JOHN B. TABB.



A RUINED ABBEY, BALMERINO, SCOTLAND — *Florence Maynard*

Editorial Notes



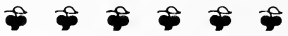
OUR cover illustration this month is a seasonable picture by Mr. Floyd Vail, entitled, "An Hundred Fold." It is a characteristic landscape of this talented photographic artist, and has been greatly admired wherever shown. The frontispiece is an exquisite tonal picture by Miss Florence Maynard and is referred to in the leading article by the editor.

THE September number of THE PHOTOGRAPHIC TIMES will be devoted to the Philadelphia Convention of the Photographers' Association of America and will contain editorial reviews of the exhibition of pictures, illustrated by reproductions of the prize winners and other notable exhibits, as well as reviews of the exhibitions of photographic apparatus, and the papers read and lectures delivered in the sessions of the convention. Altogether this special number of THE TIMES will be a valuable souvenir of the Philadelphia convention.

INSTANTANEOUS photography demonstrated its practical value in the great Olympic Athletic Meet at Stockholm, Sweden, last month, when it enabled the judges to decide which runner was really ahead in the closely contested fifteen hundred meter race. Jackson, of England won, but the second place was so closely contested by Kiviat and Taber of America, that it required the aid of an instantaneous photograph of the finish to enable the judges to determine that Kiviat was slightly in the lead and so entitled to the second honors of the race.

MR. F. MARTIN DUNCAN'S lecture at the Royal Photographic Society, of London, last month, on the application of photography to biological study or research served at least one very useful purpose, viz., that of showing that there are countless ways in which the camera can be

used for securing records of observations and facts which may—and probably will—add something to the general store of knowledge of the world. This hint needs enforcing from time to time, because there are in our ranks so many who apparently use the camera in an aimless, desultory fashion, and naturally enough grow weary and cast it aside for some other hobby. If photography is to afford the amateur real and lasting pleasure, he must have a deeper, further aim than that of producing what some are pleased to call a good technical negative or print.



ONE may compare the pure technician with one who labors strenuously to learn to produce copper-plate-like caligraphy, spell correctly, and fashion elegant sentences, but gives no heed to the sense or value of what he writes. By all means spare no pains to secure good "technical" results, but do not be content with this. It may be urged in reply that the worker has no interest in "art" or picture-making. Still, there are left scores of other open roads along which one cannot move far without finding subjects of interest. Natural history (*i.e.,* plants and animals, their forms, habits, environment), is a vast field. Architecture, not merely of the palace, mansion, or cathedral, but also of the village church and wayside cottage, is a delightful study. Children's games, street life among the people, industries, river scenery and incidents, farm life—these are but a few which instantly occur to all.

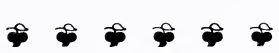


THERE is a common notion—erroneous as many common notions are—that specializing in any subject narrows one's interest and outlook. But specializing in the commonsense way should have the opposite effect. Some specialists in photography make the mistake of dealing only with some one narrow groove apart from its relationships. It is the environment of the specialized subject that gives it its true proportion, and so makes it have a living, lasting, growing interest. By way of example, the Rev. F. C. Lambert writing on this subject for the London *Telegram,* takes the first subject that comes to mind, "the first thing I see on looking out of the window—viz., trees," as he writes. The study of the oak, for instance, its form (leafless, leaf-clad), structure of leaf, flower, fruit, wood, bark, root; varieties (of which some 300 are mentioned, including twenty-eight varieties of the common English oak); geographical and geological distribution (200 fossil forms), uses, bark as corks, tanning, dyeing, gall-insects and parasites generally, and our special interest in tannic and pyrogallic acids; timber uses and diseases in furniture, house, and shipbuilding; treatment by artists, effect on land contours, folklore, historic oaks, proverbs, and poetry. These are a few of the aspects of the oak tree.



FINGER-prints at times play an important part in identifying individuals, for it is said that as no two faces are absolutely identical, so also no two finger-tips are absolutely identical as regards the skin corrugation mark-

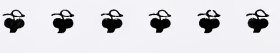
ings. Experts tell us that they can always find some slight difference. Be that as it may, the photography of finger-marks is steadily becoming a matter of some considerable importance, so that any aid in increasing the reliability of the results and facilities in obtaining them may be worth recording. Those who make lantern slides know only too well how finger-marks may all too often make an unwelcome appearance—in the sky of a landscape subject, for instance. Nevertheless, these undesirable finger-tip impressions have suggested a method of converting an accident into an interesting experiment.



ANYONE desirous of obtaining a life-size impression of the markings of his own fingers may do so in the following easy and effective manner. Prepare a small quantity (say, ½ oz.) of freshly mixed double-strength developer (*e. g.*, water, ½ oz.; soda sulphite, 20 gr.; amidol, 2 gr.) in a graduate, into which the finger ends may be dipped. Now, in absolute darkness, take an ordinary rapid unexposed dry plate, and lay it at down flat on the table with its film side upwards. Dip the finger in the developer for a second or two, shake off any clinging drops, lay the wet finger flat down on the coating of the dry plate, and hold it fairly firmly and quite still for at least a minute, and preferably for two or three minutes. By this time the wet finger will have stuck to the gelatine, so it must be slowly "peeled" off, as it were. The plate now goes straight into the fixing bath. All going well, we have an impression with clear glass background, which may be used as a lantern slide. A contact impression on a second plate may be made and used for printing. It should be noted that this method has the advantage of giving a life-size image, and so may be measured as well as inspected.



A PATCH of strong light attracts the eye more quickly and continuously than an equal-sized patch of deep shade or shadow. Consequently the camera man's eye is very apt to be so much occupied with the lights of a subject that the shadows are largely neglected, if not entirely ignored. Yet, as a matter of fact, the shades and shadows nearly (but not quite) always are the more important factors in the final result. Thus the old photographic maxim, "Expose for the shadows and let the highlights take care of themselves," is seen to be well founded. But this maxim, like many others, requires to be applied with common sense. Because in actual field work subjects vary so greatly, as regards light and shade contrasts, that no hard and fast rule can be laid down that would not lead to frequent failure.



THE more feeble the light, the longer the exposure required to give a developable image. But when the eye is attracted by a strong light, it does not readily perceive small differences of shade in the darkest parts of a strong contrast subject, and so is apt to accept such patches as being of uni-

form darkness. But uniformity or flatness of lighting is the exception in nature, gradation is the rule. To secure this gradation the exposure must be sufficient to register the lighter parts of the deeper tones, *i.e.,* all except the deepest shades. Now it is the "plentiful lack" of shadow gradation which characterizes and largely mars the majority of photographic pictures taken at this time of year. In other words, the prints show shades and shadows lacking in gradation, *i.e.,* flat patches of meaningless darkness, which not seldom have the further fault of being far too dark and devoid of all suggestion of space or form.

WE presume our readers have observed the slight change which our publishers have made in the wording on our cover, and wherever the title of the magazine appears. When the Scovill & Adams Company, of New York, which formerly owned THE PHOTOGRAPHIC TIMES, combined with E. & H. T. Anthony & Co., which owned *Anthony's Photographic Bulletin*, the two publications were consolidated under the name of THE PHOTOGRAPHIC TIMES-BULLETIN. Subsequently when our present publishers took over the consolidated magazines, the word "Bulletin" was dropped from the title, in the interests of brevity, though all rights to the use of the name were retained. Now our publishers have decided to add the full title of *Anthony's Photographic Bulletin* to that of *The Photographic Times,* in order to record and preserve the fact of the combination of these two old and honored photographic publications.



SWANS AT LAKEWOOD — *W. I. Lincoln Adams*

Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

COLD TONING OF GASLIGHT PRINTS.

It is generally claimed that gaslight (chloro-bromide) paper prints are not suitable for toning with gold or platinum or account of the large size of the silver grains constituting the image. The above statement is correct in so far as it relates to attempts to treat these prints the same as those on printing-out paper.

Platinum toning solutions also do not tone directly but do so on the addition of mercuric chloride, the latter apparently acting as a catalizer similar to the action which takes place in sepia toning with sulphur compounds.

The silver of the image is converted into a silver haloid, which is then replaced by metalic platinum which forms the new image. The thiocyanate bath is capable of toning the developed images on gaslight papers.

If prints possessing various disagreeable tones are placed in a thiocyanate toning and fixing bath they will be toned first black and finally become quite bluish in tone. These results moved us to try to get a pronounced blue color, which was successful.

After numerous tests on gaslight papers the following method yielded a blue tone which was not inferior in beauty to that obtained with iron salts. The permanency of prints so treated was also greater than those made with the iron salts.

The prints to be toned are developed in the usual way and after fixing are washed for fifteen minutes and then placed in a bath consisting of:

English.		Metric.
33 ozs.	Water	1000 c.c.
1 oz., 2½ drams	Ammonium thiocyanate	40. gms.
1 oz., 2½ drams	Gold chloride solution, 1-100	40 c.c

About half an hour before the toning bath is to be used the gold is added slowly and with constant stirring.

It is ready for use when it has become colorless. It takes about ten minutes for the prints to tone to a blue color, the high lights remaining white. After washing fifteen minutes the prints are ready to be mounted. If the prints are developed in the usual way for obtaining sepia and reddish tones, the blue color is more intense and the toning is also more rapid.

If possible to tone the prints before fixing and they also tone faster than after fixing. After developing, the prints are placed in a weak boric acid solution, which quickly interrupts the development, they are then placed in the above gold bath until toned blue, washed again for a few minutes and then placed in an acid fixing bath.

Toning before fixing has the disadvantage that it has to be carried out in an orange light or at some distance from artificial light. On some gaslight papers the scale of tones during the toning process is similar to that on printing-out papers.

It was possible to make prints which after toning could hardly be distinguished from those on printing-out papers.

The prints can also be toned in a combined toning and fixing bath. This simplifies the matter as the prints, immediately after they are taken from the boric acid solution, can be toned and fixed in one operation. Attempts were then made to tone bromide prints, but with indifferent results.

It was possible to attain only a slight bluish color. This leads to the conclusion that the silver grains are larger than those of the gaslight paper images and consequently make it more difficult for the toning to take place. Gold toning and combined baths containing thiocyanate impart blue shades to gaslight prints having a black color, while those possessing various col-

ors produced by development, take on the appearance of a printing-out paper.

Bromide prints are but little acted upon by these baths. Platinum baths do not tone either gaslight or bromide prints directly. This toning method yields such good results that it is worthy of notice and of practical application.

—*Deutsche Photographen Zeitung,* Vol. 36, No. 16.

❖ ❖ ❖

ENLARGED PAPER NEGATIVES THROUGH REVERSAL, BY C. JOUNG.

In place of negative paper, the author uses bromide paper, which is cheaper and more easily obtained.

The paper should be thin and possess considerable latitude in exposure.

All operations must be carried out in the same tray without removing the paper.

The exposure must be longer than that for the usual enlargement, say at least three times.

After exposure, water is poured on the paper and allowed to penetrate for about one minute; it is then poured off.

Now the developer of the following composition, replaces the water:

English.		Metric.
3⅓ ozs.	Water	100 c.c.
15 grains	Amidol	1.0 gm.
75 grains	Sodium sulphite, cryst.	5.0 gms.

For use the developer is diluted with an equal volume of water. The time of development is about five minutes; the solution may be used several times.

The print is now washed in three changes of water and then allowed to drain. The tray with the print is then brought out into daylight. The time of exposure to daylight is of importance and requires some practice.

Too short gives hard pictures, while too long makes them flat. When properly exposed the whites acquire a rose tint; if it becomes violet, this would indicate overexposure.

If the print includes nothing white, a piece of bromide paper is placed on the edge of the tray and exposed with the print. The exposure may take as much as sixty seconds in weak daylight.

After the exposure the tray is removed to the darkroom and the following etching bath poured over it:

3⅓ ozs.	Water	100 c.c.
½ dram	Nitric acid	2 c.c.
30 grains	Potassium dichromate	2.0 gms.

Under the action of the solution, the image rapidly disappears and only a faint orange-yellow picture remains.

The print is now rinsed off twice with water and a solution containing to every 500 c.c. (16 ozs.) of water 25.0 gms. (6½ drams) of sodium bisulphite. The latter solution causes the faint image to almost disappear; it may be used several times. The print is now washed for five minutes in five changes of water.

These operations must be all carried out in red light. We now proceed to the second development and the developer first used may also be used here. The time of this second development may take from five to fifteen minutes. The development is complete when the print appears evenly black when viewed 10 c.m. (4 inches) from a lamp. The print is then rinsed twice and placed in a 20% fixing soda solution. In a few seconds the remaining few particles of silver bromide are dissolved and the print is then washed and dried in the usual manner. To increase the transparency of the negative print, the author goes over the back with a tuft of cotton wet with either petroleum or sweet almond oil: these he prefers to the usual mixture of castor oil and alcohol. In case any of the oil comes in contact with the front of the print it can be removed by means of a tuft of cotton and a little chloroform. Although the above operations may seem somewhat complicated they really are quite simple, and as two prints can be treated at once, the average time is only about fifteen minutes per print. The negatives so obtained are brilliant and eminently suitable for the various gum, pigment, carbon and oil processes.—*Photo-Revue,* Feb., '11; *Photographisches Wochenblatt,* Vol. 37, No. 11.

Discoveries

[All readers of The Photographic Times are invited to contribute to this Department reports of their Discoveries for which we will allow One Year's Subscription, on publication of the contribution.—The Editors.]

INDEXING NEGATIVES.

I do a great deal of postcard work, and found that some way of indexing was necessary, so I took the empty boxes, which the plates came in, and pasting a strip of white paper on the side, I number my negatives in the negative envelopes, and place them in the boxes, envelopes and all, and place the corresponding numbers on the strip of white paper on outside of the box, so I can tell at a glance what negative I wish. I keep the boxes sitting on the edge, so the negatives do not press on each other. Then take a blank book, and record the number and name of negative.

W. H. S.

⁂ ⁂ ⁂

A VIEW "COMPOSER."

To find how a landscape view would "compose" and how much of it would be included on my negative I find the enclosed "Finder" convenient and perhaps others would also. Directions for use: Open and place close to the eye, either upright or horizontal.

William H. Blacar.



⁂ ⁂ ⁂

FOR TRIMMING PRINTS.

Get a piece of ground glass the size of your largest prints. Draw parallel lines on two sides crossing each other on one corner. When trimming prints lay glass on face of print and cut along the two unruled edges and have the other edges of print parallel with lines drawn on ground glass. This way you will always have square corners.

For those who want a more durable form the etching method may be resorted to. Cut a piece of glass the desired size and the edges should be ground smooth on a piece of glass, with wet emery. Have the glass warm enough to melt paraffine wax or beeswax. Coat on both sides. On one side scratch lines with a dull-pointed needle same as on first glass. See that lines are cleaned out well or the lines will not etch. The wax should be on the glass very thin. Drop this glass in a rubber tray (not glass tray) containing water, two parts; hydroflouric acid, one part. Leave in acid about five minutes, then rinse in cold water and clean off. This acid is very poisonous and the fumes should not be inhaled. A drop of this will burn a hole in the skin.

J. J. Harman.

⁂ ⁂ ⁂

A VIGNETTING DEVICE.

A simple and effective device to hold vignetting "cut outs" at a proper distance from the printing frame is a valuable addition to the kit of any amateur photographer; and such a device may be easily made as follows: The best material is a sheet of very light tin, or of thin brass such as is used for hammered work or stencils. This should be cut in the shape shown in the diagram, figure 1. The opening in the middle should be the same as that in the printing frame, the side pieces about half an inch wide and the ends one and a half inches wide. The ends should be so tapered that the distance a a' will be a trifle less than the width of the opening in the frame. Assuming that the sheet thus cut out (which

would be technically termed the blank) lies flat, the sides are bent upward, along the dotted lines c c' and folded over some thin object of the same width as the plates used.

A glass plate itself may be used for the purpose, but as it is rather frail and thick, a piece of sheet iron is better. The blank is next bent upward at right angles along the lines a a' and downward, also at right angles, on the lines bc, b' c'; making the side view, after bending, as shown above and the end view as shown at the right.

The ends, E, E, will now be capable of being sprung into the rabbet of the printing frame where they will be held between the wood and the glass plate. Cards of the size of the plates used, cut out in such forms and sizes as may be desired, may be quickly prepared or kept on hand; and the required one may be instantly slipped into the grooves formed by the folded over sides. The photo shows the device ready for use except that the "cut out" is partially withdrawn in order to show the method of its insertion.

* * *

Recently during my preparations for my summer work in photography I built a cheesecloth print dryer, consisting of several frames, all of which slide into a little frame, which I manufactured out of old packing boxes. It has proved very convenient in more ways than one, particularly in its saving of space. Formerly a large batch of drying prints covered every available space in two or three rooms, much to the discomfort of the entire household. Now a space 2 feet by 3 feet does the work much more satisfactorily.

This dryer was very easily made and perhaps others might be interested in knowing how it was built.

HOWARD W. LAWTON.



DRIVING OFF *S. Sanders Neck*

A DEVELOPER THAT WILL KEEP.

With fairly regular frequency there comes along the query or request for a developer that will keep, and merely require the addition of water. To this one may in general reply that freshly-prepared solutions are preferable as developers. Nevertheless, there are many amateurs who use the camera at very irregular intervals, to whom an ever-ready developer is a considerable convenience. For the benefit of such workers I may quote a bit of my own recent experience. During the last Christmas holiday season, I made up a 4 ounce bottle of concentrated paramidophenol developer, from which I have been using at odd intervals as a check in various experiments. This week I used the last portion of it, and found it worked quite well, but rather slowly, as one might naturally expect.

To prepare this stock solution, take 6 drams (*i.e.*, 360 grains) of potassium metabisulphite; grind this to powder, put it in a graduate, and add tepid water to make a total of 3 ounces. When the solids are dissolved, add 60 grains of paramidophenol. Now in another graduate put 3½ drams of caustic soda, and add water to make 1 ounce. When this is dissolved, add the soda solution to the first-named mixture (*i.e.*, containing metabisulphite, etc.). The addition should be made slowly—a little at a time, with brisk stirring. At first we get a creamlike mixture, but presently this gets less and less visible, until finally the mixture is clear again. When this point is reached cease adding the second solution. This will require nearly, but not quite, all the second solution. Filter the mixture through a bit of cotton wool, and add water to make a total of 4 ounces. For a developer take 1 dram of this stock solution and 1 ounce of water. F. C. LAMBERT.



INDIAN HUNTERS

Items of Interest

Color photography by flashlight was demonstrated at the April meeting of the Photographers' Club of New York held at the studio of I. Buxbaum, Brooklyn, on the evening of April 16th. Some thirty-five members were present and displayed great interest in the making of six plates. The models were posed under the direction of Mr. Dudley Hoyt and all except one of the exposures were made by means of the new Agfa Flashlamp and Agfa Powder. The five plates thus exposed were completely successful, the time in each case being so correctly gauged that all of the values of the plates were preserved.

Under the direction of Mr. Geo. L. Barrows, chief of the photographic department of the Berlin Aniline Works, great progress has been made recently in the making of pictures by flashlight on autochrome and other color plates, the Agfa powder and Agfa lamp being especially adapted for this work. The rapidity of combustion and the great illumination of the powder, together with the absence of odor, smoke and noise enable its use in the studio without bags or other of the cumbersome machinery so usually associated with color flashlights. The rapidity of the flash which corresponds to an exposure of approximately one 35th of a second, practically assures a perfect picture on every exposure.

Mr. Barrows is preparing to give other demonstrations in neighboring cities during May and June and those who desire to witness the very latest thing in autochrome work should get in touch with him through the home office of the Berlin Aniline Works, 213 Water street, New York City, at once.

* * *

NIGHT PHOTOGRAPHY.

It is the wise custom of the Society of Night Photographers to invite discussion of the artistic treatment of night scenes and sentiments by those practising crafts other than photography. In this way a wide outlook and broad sympathies are engendered. The closing meeting of the present session was held last week, at the Memorial Hall, which Mr. A. H. Blake reminded the gathering was on the site of the old Fleet Prison of sad and sorrowful memory. On this occasion the assembled photographers had the enjoyable privilege of seeing various presentations of evening, twilight, and night not with eye, but through the ear, when that gifted master of the pianoforte, Mr. E. Fowles, played a series of appropriate pieces, beginning with the stately Largo of Handel, and winding up with the so-called "Moonlight Sonata," of Beethoven. It will thus be seen that the "Night Photographers" take a very catholic view of their work.

* * *

PHOTOGRAPHS MOUNTED ON THE FINGER NAILS.

One of the latest fads in Germany is the mounting of photographs on the finger nails, the idea growing out of the whim of a cousin of the Kaiser, who had an enameled portrait of her fiancé worked on the nail of her little finger. This portrait was a work of art and cost $90, but now the fashionable manicures of Berlin have taken up the idea in the photograph form.

The feature of this work by manicures is rendering the photograph waterproof, which is done by coating it over with a shellac-like substance burned upon the nail. It is said that with careful handling, a photograph so mounted will last about four months without renewal.

* * *

A FILM TIP.

When you take your exposed spool out of your camera, before sticking down the end, give the black paper a turn in of

about half an inch, this will enable you to easily undo the spool when you proceed to develop it.

* * *

If the India-rubber ball or tube of your camera has become hard, plunge it into warm water for five minutes or so; if, on removal after this time the rubber is still hard, soak it in a bath of ammonia, one part and water two parts.

—*Australian Photo Review.*

* * *

LABELING PLATEHOLDERS.

It is a great convenience and I find, an absolute necessity where one uses different sizes of plates, to label the plateholders. On the end opposite the slide handle I print 5 x 7 Standard or 4 x 5 Vulcan, or 3¼ x 4¼ Blue Label or B. L., or 3¼ x 5½ E. Sigma, as the case may be, depending upon the brand and size of plate I am using. An instant's glance tells me which plate to use. By using a lead pencil the labels are easily erased and new ones written when loading with other sizes or brands of plates.

* * *

PHOTOGRAPHING THE HEART BEAT.

Latest of all the inventions utilizing the discovery of the Röntgen is a contrivance for photographing the beating of the human heart. It is hoped by the *British Medical Journal,* from which these details are copied, that this new discovery will afford physicians the means of discerning more clearly the action of the heart, enabling them to treat more exactly the various diseases of that organ which have been until now so mysterious. Although the new device is of quite recent date, its practicability is proved by the fact that it has already been introduced into many important hospitals in Europe.

The patient whose heart is to be examined is ushered into a pitch dark room, from which every ray of light is excluded.

"Without removing his clothes or making any other preliminary preparation, he is invited to sit down on an ordinary chair before a large glass bulb. Then the operator switches on the current, and in response the electric sparks hiss in the glass bulb, filling it with a pale-green light. Then the operator holds in front of the patient a plate which has previously been prepared with a compound of barium platinum. On this is thrown a clearly defined image of the heart, and the electric rays are so arranged that the shadow of the rib-bones is scarcely perceptible, and does not in any way interfere with the examination of the fleshy mass forming the heart. So distinct is the image that one can clearly observe the opening and closing of the valve as the blood is being pumped through it. Needless to say, the patient feels nothing whatever during this operation. So far no photographic emulsion has been discovered which is sufficiently sensitive to record the movements of the heart as seen on the barium platinum screen, though it is expected that before long it will be possible to transfer this action to a cinematograph film. Because of this difficulty, another means has had to be adopted, and the movement of the heart as seen on the screen is recorded on what is called an electro-cardiagram. In order that this may be obtained the patient has to place his bare arms in two large vessels filled with water. Into each of these vessels a copper wire is led which is charged with electricity. Where these wires meet a very thin platinum wire is attached to them, resting within a highly charged magnetic field. As soon as the contact is completed this platinum needle begins to move, its movement being regulated according to the strength of the electric current passing through it.

Since the human body is a conductor of electricity, the contact-circuit is made when the patient places his arms in the vessels of water into which the wires are led. The movement of the needle follows the contraction and expansion of the heart, impelled by the electricity generated through the action of the muscles of that organ while performing its function. When these contractions are strong the swing of the needle is much greater than when the contractions are weak. Under the moving needle a photographic film is slowly passed and the light above it so arranged that a faithful imprint of the beating of the heart is recorded on the electro-cardiagram.

31st May, 1912.

THE EDITOR, PHOTOGRAPHIC TIMES,
New York City, U. S. A.

DEAR SIR:—

I am now engaged, along with two other officials of the Photographic Survey and Record Survey, in preparing a book dealing with the general subject of Photographic Survey work.

The value of the photographic print in recording the architecture, antiquities, popular life, customs, and natural history of a town or district is only now beginning to be generally recognized. In England there are already a number of town and county societies carrying on work of this kind. In a number of cases these societies have recognized that the local Public Library is the best place in which to house their collections. In the case of the Survey and Record of Survey, we have stored in the Croydon Public Libraries, a collection which has now reached a total of about 5,000 prints, and 1,000 lantern slides, which illustrate every department of county history, scenery, and so forth.

We are anxious in our forthcoming book, which we hope may widely extend the movement for Photographic Record, to state what has actually been done in this direction in other parts of the world.

I shall be extremely grateful if any of the readers of PHOTOGRAPHIC TIMES can send me any information as to what is being done in America, either by means of societies, or in a more private way, to make and store photographs of this kind.

The points upon which information is particularly desired are the following: 1. Date of founding of society; 2. Secretary's name and address; 3. Number of prints in collection; 4. Number of lantern slides; 5. Main subjects represented; 6. How stored, albums, boxes, drawers, vertical file; 7. Where stored, public library, museum, or other place; 8. Is collection accessible to public, if so under what conditions; 9. Is collection arranged, if classified, any notes showing nature, detail, and extent of classification would be highly valued; 10. Is there any catalogue or index, if so of what kind; 11. Method of mounting, dry, wet, or other; 12. Size of mounts, and material, whether paper or card.

Copies of rules, reports, label, and any other printed matter would be extremely useful.

I need hardly say that due acknowledgment will be made of all information given and material sent.

Faithfully yours,

L. STANLEY JAST,

Chief Librarian, Croydon Public Libraries; Honorary Curator, Photographic Survey and Record of Survey.

* * *

BLISTERS ON GASLIGHT PAPERS.

Blisters in general are due to the prints being submitted either to a sudden change of temperature or density. Thus, transferring prints from warm to cold solutions (or *vice versa*), or from plain water to denser solutions (or *vice versa*). In your case the cause seems to be transferring the prints from a dense solution (*i.e.,* fixing bath) to less dense (*i.e.,* plain water.) The remedy is to make the change gradually, *i.e.,* by slowly diluting the fixing bath with a little plain water, and keeping the prints moving all the time.—*A. P.*



Among the Camera Clubs

[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—The Editors.]

The California Camera Club is the most unique institution of its kind in the United States, and also has the largest membership. It not only provides a rendezvous where advanced photographers may meet, compare notes and do their own photographic work, but it also forms a complete school of instruction for beginners and amateur kodakers.

The pictorial worker will find here every convenience to assist in the production of artistic work, while others to whom quantity is an object will take advantage of the many time-saving features provided.

In addition to being the official headquarters of the craft generally, the California Camera Club is undoubtedly one of the greatest publicity mediums of the State through the wide distribution given its pictorial productions; therefore, it is an institution whose growth should be fostered, and work encouraged, by every citizen who has the interest of the State at heart.

* * *

The Photographic Club of Baltimore City announces the affiliation of that club with the Maryland Academy of Sciences.

Under the plan of affiliation the Photographic Club retains its own identity and organization, but will be known as the "Photographic Section of the Maryland Academy of Sciences," with the parenthetical explanation (Photographic Club of Baltimore City).

The Photographic Section of the Academy will occupy handsomely appointed rooms on the ground floor of the Sciences building, 105 W. Franklin street, and will have ideal facilities for all phases of photographic work, including studio for portraiture, enlarging room with dark rooms attached, separate darkrooms, and complete equipment for making lantern slides, etc. The meeting and exhibition room will be trimmed in green and white and there will be space for hanging about one hundred large prints.

The handsome assembly hall of the Academy will be at the disposal of the Photographic Section for exhibition of lantern slides, lectures, and other entertainments.

There is every expectation of increased membership once the club is fully established in its new quarters. Even at the present time, with many of our most active members away for the summer, some ten or twelve new members have been elected.

The club extends a cordial invitation to all patrons of the "art beautiful" to sojourn with them when in Baltimore.

The officers of the club are as follows: President, James F. Ferguson; Vice-President, Harry A. Harvey; Treasurer, Geo. H. Rowe, Treasurer, J. A. O. Tucker.



Photographic Reviews

BROMIDE PRINTING AND ENLARGING.

A practical guide to the making of bromide prints by contact and bromide enlarging by daylight and artificial light methods, with the toning of bromide prints and enlargements.

Contents. Chapter I. The varieties of bromide papers and how to choose among them. II. The question of light and illumination. III. Making contact prints on bromide paper; paper negatives. IV. Enlarging by daylight methods. V. Enlarging by artificial light. VI. Dodging, vignetting, composite printing and the use of bolting silk. VII. The reduction and toning of bromide prints and enlargements. 63 pp. Colored covers. 25 cents.

☆ ☆ ☆

DEVELOPERS AND DEVELOPMENT.

A practical survey of the principal developers and their characteristic points; with reliable formulæ and instructions for their use in negative making.

Contents. Chapter I. About negative making. II. Developing agents. III. Composition of developing solutions. IV. Making up developers. V. Points on chemical manipulation. VI. Pyro-soda, pyro-potash, pyro-metol, pyro-acetone. VII. Ortol and ortol-metol. VIII. Hydroquinone, hydro-eikonogen, adurol, amidol, nerol. IX. Metol, satrapol, rhodol, metol-hydro, X. Glycin, eikonogen, eiko-hydro. XI. Rodinal, citol, tolidol, microgen, duratol. 64 pp. 25 cents.

For sale by all dealers. Tennant and Ward, publishers, New York.

These two little books complete the big six series and, like the other volumes in the series, offer a mass of carefully digested, practical information on their subjects. We commend them to our readers as honest little books, well worth the price asked for them.

Das Latente Bild, by Dr. L. Cramer, 1911. Two illustrations. Published by Wilhelm Knapp, Halle, a. S., Germany. Price, Mk. 3.60.

The latent image, that elusive something which has puzzled scientists since the days of Daguerre and about which much has been written, is a subject which has attracted and held the interest of Dr. L. Cramer for the past ten years. During this time the author wrote some 200 articles touching on this subject and in this volume it was endeavored to bring together, in an interesting form, and somewhat abridged, these numerous papers. The author, who is director of the scientific laboratory of Dr. Schleussner's dry plate factory in Frankfurt, a/M., Germany, is in an exceptional position to carry out experiments in this field. Dr. L. Cramer admits that while the nature of the latent image has not been entirely cleared up in all its details, the solution of the problem has been put on a better basis, permitting the elimination of dogma and unfruitful hypothesis.

The subjects treated are the chemical and physical changes of the silver haloids through radiant energy. The phenomena of reversal and halation. Halation in red light or Herschel effect, also Clayton effects and its variations through X and other rays. There is also a bibliography embracing 83 articles.

☆ ☆ ☆

TEXT BOOK ON OIL AND GUM PRINTING TO BE ISSUED BY THE NATIONAL ASSOCIATION.

It is rather unusual for the P. A. of A. to go into the publishing business, but President Larrimer does things in an unusual way, so this year the Board has had prepared a text book on the Oil and Gum Printing Processes, following the methods that will be demonstrated at the National Convention this year: There is bound to

be a vogue for gum printing and oil printing after this year's convention, and there is no book yet published in this country covering those processes in detail.

The book is written by the six experts who have been engaged to conduct the school, and it will be given free to every member of the Association. When you figure that you get the magnificent Association Record, this new text book, and all the lectures, exhibitions and entertainments for the small amount of your yearly dues, you have got to admit that the P. A. of A. is "going some."

☆ ☆ ☆

PRACTICAL PHOTO-MICROGRAPHY.

By J. Edwin Barnard, F.R.M.S., Lecturer in Microscopy, King's College, London. New York, Longmans, Green & Co., with 79 illustrations and 10 plates, containing 47 progressive examples of micro-photographs. xii — 322 pages. Demy, 8vo. Cloth, net $4.20.

Photo-micrography has made many advances of recent years, and, as Mr. Barnard mentions in his book, these advances have been largely called forth by its use for the purpose of recording the successive stages and results of scientific research. Thus the methods of dark-ground illumination have been improved to meet the requirements of the bacteriologist, and more especially to the metallurgist do we owe modern devices for the illumination of opaque objects.

It would therefore only be the repayment of a debt if a practical book, written by an enthusiastic follower of the art should inspire scientific workers with a desire to enter the field of photo-micrography, or if they have already begun, should help them to surmount its difficulties. For recording the appearance of objects as seen in the microscope nothing can be so satisfactory as the camera and the photographic plate; there is no prejudice or bias in its records, and the personal equation is eliminated. In the hands of an expert who thoroughly understands the critical illumination of different objects, even the most intricate structures can be perfectly delineated.

It is not an easy matter to describe the details of a highly technical process in such a manner that the reader can straightway go and produce exactly the same results. Sometimes, indeed, it may be easy to show another person how to do it, but many difficulties lie in the way of the written description. The author of the present book, Mr. J. E. Barnard, has here undertaken a simple and straightforward account of the methods which a very wide practical experience has shown him to be best for the photographing of microscopic objects. The subject is treated from first-hand knowledge, and the result claims the attention of all who wish to take up a new and most fascinating study or to extend their knowledge as to the best practical methods.

The list of contents speaks for itself. After a short description of such microscope stands as are most suitable for the work, the author enters in fuller detail into the optical equipment,—objectives, oculars, condensers, and collecting-lenses. The various types of illuminant and illumination are fully described—a subject as to the paramount importance of which no photo-micrographer needs to be reminded.

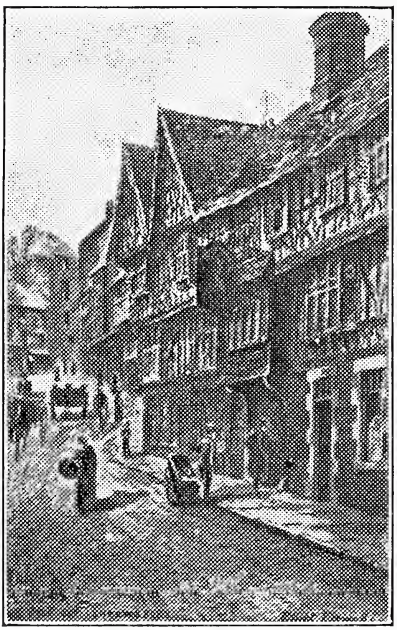
Upon the illumination success primarily depends, and the seventh and eighth chapters by their insistence on the great advantage to the amateur or beginner of a good deal of preliminary experimenting are intended to give him a firm grounding in the art of illuminating an object. For such preliminary work nothing can be more instructive than the observation of the image projected on an opaque screen.

Color-filters for securing contrast or for more perfectly rendering color differences in monochrome are next considered, and are followed by plates and their development. Chapter XI deals with photo-micrography by ultra-violet light—a method with great possibilities but at present only suitable for practical experts—with stereoscopic micro-photographs, and with the production of colored lantern slides.

Lastly, a series of progressive examples, ranging from botanical, bacteriological, and pathological subjects to diatoms, foraminifera and metallic sections, and each chosen to show some special point in the structure or lighting, are illustrated by ten collotype plates.

The Spell of England, by Julia de Wolf Addison. L. C. Page & Co., publishers Boston, Mass. Net, $2 50

It does not seem possible that anyone who has read any amount of English history has not been under a spell. To those fortunate enough to have had made a visit or pilgrimage to the many historical and legendary places of interest do indeed feel under such a spell. To those not fortunate enough or in fact to those who have been



OLD HOUSES AT SHREWSBURY

fortunate enough to have enjoyed the pleasures of a visit, this book will well repay in education and entertainment the time consumed. The pages are embellished with reproductions from original photographs, and also a frontispiece in colors, and with a large map of England inserted preceding the text. Several of the chapters taken at random from the contents are as follows: Banbury Cross and other Quaint Spots, In the Costwold Hills, Valleys of the Severn and the Wye, Snowdon and the Gelert Legend, The Shrine of St. Edmund. Our illustration is a reproduction in miniature of one of the full page pictures.

We have enjoyed this book immensely and recommend it most heartily.

* * *

Belichtungstabelle, by Dr. Egon Meier. Published by Wilhelm Knapp, Halle, a. S. Germany. Price, Mk., 0.30.

These are a series of exposure tables calculated from 60° North to 30° South latitude and a special table for equatorial regions. The tables are arranged for all hours of the day and months of the year, apertures from *f*4.5, to *f*7.6, also the additional time when using a yellow screen. These tables are suitable for interiors, portraits and copying. The difference in the exposure between sea level and 3,750 meters (about 12,000 feet) elevation, and the difference factors required for plates of varying speeds.

* * *

Portrait for May contains the following alphabet for Cykologists:

AN ALPHABET FOR THE CYKOLOGIST.

Aim to make the best.
Be painstaking.
Cyko means quality.
Deliver the goods.
Earnest efforts bring success.
Follow instructions.
Good judgment is your best asset.
Hold your temper.
Insist on pure chemicals.
Justice to all.
Knowledge is power.
Lead—don't follow.
Make friends and keep them
Never postpone until to-morrow.
Old ideas should be forgotten.
Painstaking efforts will be rewarded.
Question no one's veracity.
Rush orders.
State facts.
Truth should not hurt.
Use legitimate methods.
Vanquish competitors.
Work incessantly.
Xcellency should be your standard.
Yesterdays should be forgotten.
Zealously guard your reputation.
& insist on Professional Cyko.

Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

One of the most useful pieces of apparatus that we have met with for a long time is the "Sanger Shepherd Density Meter." As the name implies, this is an instrument enabling anyone quite easily to measure the density of any part of a negative by matching it (side by side) with a graduated strip, ranging from clear glass to what one may call a full-sky density in a good practical negative. Along this strip are certain numbers, which enable one to compare the density of one part with another part. The practical uses of such an apparatus are many, but for the moment it may suffice to give one only. Suppose we have a negative in which the highest light is a whitewashed cottage, and that we require our bromide print to show the delicate gradations of this highlight patch. By means of the apparatus, suppose that we find this highlight matches tint 18 on the sliding scale. This number may now be marked with pencil on one corner of the film. We then turn to a table of exposures, and under tint or density No. 18, we find the exposure required is 10 seconds with Kodak rapid platino matt, for instance. This exposure is computed for use at half a metre (or say 20 inches) from a gas burner, equal to sixteen candle-power. But if the worker prefers to use a similar gas burner at some other more convenient distance, the alteration of the exposure figures can be made in a moment. Thus, instead of 20 inches, suppose 30 inches be preferred. The equivalent exposures at 20 and 30 are in the proportion of the squares of these numbers, or as 4 to 9 or 1 to 2¼. Thus 24 seconds at 20 inches is equivalent to 2¼ times 24, or 54 seconds at 30 inches.

⁂ ⁂ ⁂

To the Trade:

The following is one of the many letters we have received since the appearance of the first issue of the *Ingento Photo News,* and it speaks more forcibly than anything we might say to emphasize the business-building power of this magazine for all dealers who are handling our line::

"The article by Don Duffie in the *Ingento Photo News* sounds good to me. What Voigtländer lens do you recommend for the Ansco, Jr.? Please rush reply.

Yours very truly,

H. Hildebrand."

Mr. Hildebrand's inquiry was referred to his regular dealer, enabling that dealer to sell a high grade lens at a good profit, and at the same time placing him in touch with a good prospect for further sales.

⁂ ⁂ ⁂

Write for a copy of the Defender Tipster and find out all about the Vulcan film made by the Defender Photo Supply Co. All dealers carry this excellent film as well as the Vulcan plate and Argo paper, and we recommend giving them a trial.

⁂ ⁂ ⁂

The Ansco Company is certainly doing some good advertising these days. Their latest publication explains how a Pittsburgh dealer, by selling Cyko Paper and other Ansco products made his business grow so that in two years he had to increase his stock from $1,000 to $7,000, and he is making a profit of $5,000 a year,—certainly a very handsome showing.

⁂ ⁂ ⁂

This is the time for camp-fire pictures. They are easy to make at night, with the Eastman Flash Sheets. Just pin a sheet to the end of a long stick—arrange the group about the fire and place yourself in a position between the lens and the fire to cut out the direct light from the flash. Drop the Flash Sheet in the fire and the exposure is made.

An inexpensive and very convenient method for adding a bit of color to your prints is to use the Velox Water Color Stamps recently introduced by the Eastman Kodak Company. A book containing twelve colors costs only twenty-five cents.

Another inexpensive device of the Eastman company which is very handy, is their Photo Blotter Book, which sells for twenty-five cents. It is certainly worth many times that low price in the convenience and satisfaction of easy print drying.

⁂ ⁂ ⁂

SIMPLE AND INEXPENSIVE.

It is simple and inexpensive to make sepia prints with the Velox Re-Developer Tubes.

When you want to make only a few prints in sepia tone, you don't need to buy a large package of Velox Re-Developer. just ask your dealer for a five cent tube, and the question of making a few sepia prints is solved at a small expense.

The glass tube contains the chemicals for the re-developer and the bleaching agent, the two chemicals being separated in the tube by a cork. Pour out the first chemical and add the water as directed. This is the re-developer. Remove the cork, pour out the second chemical and add the water. This is the bleaching solution. The black and white print is placed in the bleaching solution until the image is bleached out. It is then given a thorough rinsing and placed in the re-developing solution where it re-develops to a rich sepia in a few seconds. After another rinsing the print is dried in the usual way.

⁂ ⁂ ⁂

Kodak Velvet Green paper continues to grow in favor with both amateurs and professionals. The lovely carbon effects are easy to get on this paper. You print by daylight and develop and fix in the regular Velox chemicals.

⁂ ⁂ ⁂

NOTES FROM THE ILLINOIS COLLEGE OF PHOTOGRAPHY AND THE BISSELL COLLEGE OF PHOTO-ENGRAVING, EFFINGHAM, ILL.

Mr. Frank Champion, student of 1906, who last summer sold his studio at Long Beach, Cal., and took up the profession of aviator was instantly killed at Seattle, Wash., last month by a fall in his machine.

Mrs. Helen Francis, student of 1902, was recently elected vice-president of the Kansas Photographers' Association, and Mr. Will Thorne, of 1901, was elected vice-president for Nebraska of the Inter-Mountain Photographers' Association, and Mr. Le Roy Kellogg, of Denver, student of 1905, was made vice-president of the Inter-Mountain for Colorado. Quite a number of our other students hold official positions in the various state associations.



The Photographic Times

With Which is Combined

ANTHONY'S PHOTOGRAPHIC BULLETIN

SUBSCRIPTION RATES one dollar and fifty cents a year, payable in advance. Foreign Postage 50 cents, Canadian Postage 25 cents. Single copies 15 cents. Subscriptions to the *Photographic Times* received by all dealers in photographic materials in this and foreign countries, also the American News Co. and all its branches.

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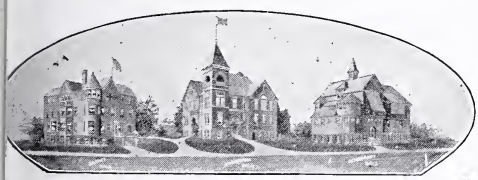
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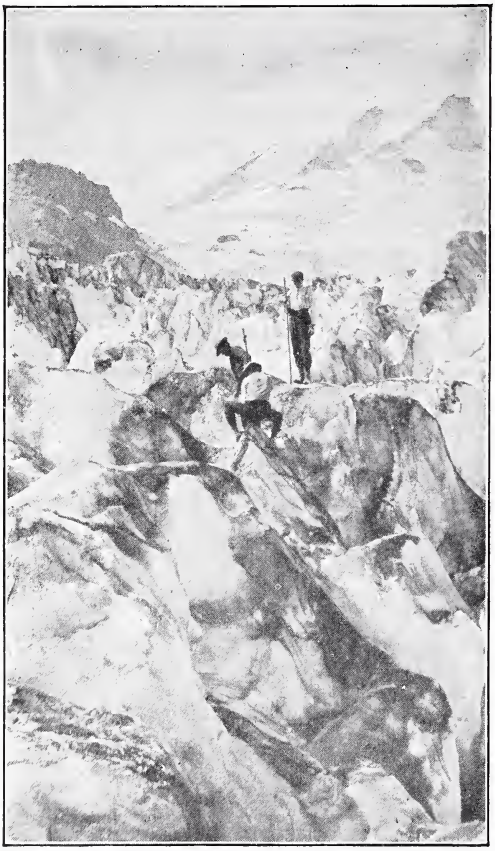
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ROCHESTER, N. Y., *The Kodak City.*



OVER THE TOP OF A GLACIER.

Perpetual snow and ice make correct exposures difficult.

A VACATION EXPERIENCE.

Did you ever pack up a vacation outfit without forgetting some very important article?

If you have, it is probably because you are an old, experienced hand at the game, but even with a great deal of experience, I find it convenient to keep a list of vacation necessities and the Kodak is at the head of each list.

Whether I go to the mountains, the seashore, the lakes, the farm or the woods; it is always the first consideration, and why shouldn't it be? On might as well go fishing and throw th fish back in the water as fast as they ar caught, or go hunting and leave th game in the woods, as to go on vacation and not bring the trip home i the Kodak negatives.

And there's no longer any reason fo coming home from the vacation tri without *good* negatives. It's such a simple matter to pack a Kodak Film Tank in the outfit and have the satisfaction of knowing in a half hour after the last exposure has been made, just what the results are. As an example of what it has meant to me, let me tell you of one little experience in the mountains.

A friend and myself had arranged for a mountain trip, and as we were both interested in the pictures we were to make as much as in the actual climbing, we decided to take a film tank between us, and it was a very lucky thing we did.

Neither of us had made negatives at an altitude of from nine to eleven thousand feet, in August, with great glaciers all about us, perpetual snow within a stone's throw of camp and a hot August sun in a clear sky.

What the result of all our exposures *might* have been is hard to tell. We had made a long trip by rail, another by stage, and had finally finished and reached camp by covering seven miles of steep mountain trail with the pack ponies. Now for the pictures.

The first roll of film was exposed under varying conditions as a test, and the Film Tank brought out of the pack. Cool water from a small glacial stream was near at hand, our developer was mixed, and with much anxiety we waited for the tank to do its work. We almost held our breath while that film was fixing, and it is needless to say we were surprised to see that most of the negatives had been over-exposed. We almost shuddered to think that but

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

or the tank, we might have taken home omething like a gross of exposures, nly to find we had badly overtimed nost all of them.

Of course we would have had negaives, but not perfect ones. As it was, ve were compelled to use a smaller stop o cut down the time on instantaneous xposures made on the snow and ice n sunlight, and our second roll was lmost perfect. It was an easy matter o correct the fault, but it took the tank o show us our mistakes.

My advice would be to have a Kodak Film Tank with you on any vacation.



LOOKING BACK INTO A CREVASSE.

Test films developed in the Film Tank made correct exposure possible.

It makes the vacation more interesting, permits you to correct your mistakes and bring home negatives which require no apologies.

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When you want to make only a few prints in Sepia tone, you don't need to buy a large package of Velox Re-Developer. Just ask your dealer for a five cent tube, and the question of making a few Sepia prints is solved at a small expense.

The glass tube contains the chemicals for the re-developer and the bleaching agent, the two chemicals being separated in the tube by a cork. Pour out the first chemical and add the water as directed. This is the re-developer. Remove the cork, pour out the second chemical and add the water. This is the bleaching solution. The black and white print is placed in the bleaching solution until the image is bleached out. It is then given a thorough rinsing and placed in the re-developing solution where it re-develops to a rich sepia in a few seconds. After another rinsing the print is dried in the usual way.

It's simple and inexpensive to make Sepia prints with the Velox Re-Developer Tubes.

DON'T FORGET THE TRIPOD.

Time was when a tripod was a pretty clumsy sort of an affair and had to be taken apart to be packed in a reasonably small space, but things are being made more simple and convenient every day, and the Kodak Metal Tripod is the greatest improvement over the more bulky wooden ones necessary for the heavier professional apparatus.

The amateur can now pack the tripod n a suit case with the rest of his belong-

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

ings and hardly know it is there, and there *are* times when the tripod is necessary to a perfect picture. There are dark days when the instantaneous exposure would be a failure, but the tripod saves the situation.

There are beautiful scenes in the woods, around the camp, on the hunting or fishing trip, where there is not light enough for a snap shot, and who has not said at some time or other, "Oh for a tripod," then taken a chance without one and made a failure?

Look into the question and ask your dealer to show you a Kodak Metal Tripod and its many advantages. The cost will seem so trifling compared to the pictures you will save by its use, that you will feel you can't afford to be without it.

HOW DO YOU DRY YOUR PRINTS?

There are many successful ways of drying prints so that they will lie flat, but they all require more or less trouble and expense and quite a bit of room especially when frames covered with muslin are used for this purpose. The simplest and most convenient method, and the one which takes up the least amount of room, is the Eastman Photo Blotter Book. This book is made up of twelve leaves of the best lintless blotter, giving twenty-four surfaces, 8½ x 11½ inches on which to dry the prints. There is a leaf of waxed paper for each of the blotting surfaces, and the prints are placed in the book in the following manner:

Lay the wet prints, face down, on the blotter, and run a roller over them to expel the surplus water. Then turn the print over so the face will come next to the waxed paper, and place the book under slight pressure. Several books placed on top will answer as a weight.

Allow to dry in a warm place and the prints will lie perfectly flat.

The Eastman Photo Blotter Book sells for twenty-five cents and will be found worth many times its price in the convenience and satisfaction of easy print drying.

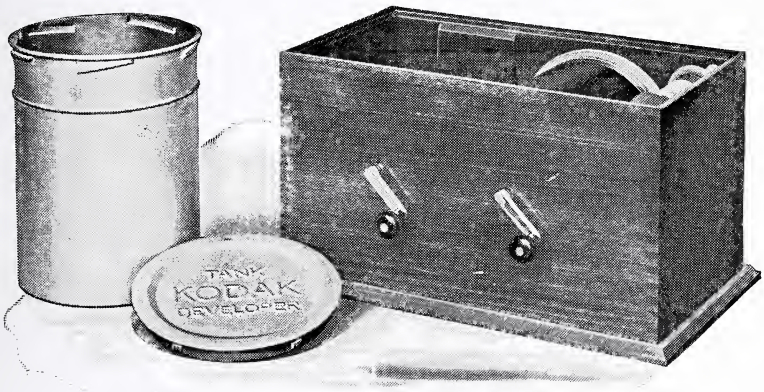
Camp-fire Pictures are easy to make with Eastman Flash Sheets. Just pin a sheet to the end of a long stick—arrange the group about the fire and place yourself in a position between the lens and the fire to cut out the direct light from the flash. Drop the Flash Sheet in the fire and the exposure is made.

Color the Print.

A bit of color adds much to the print. A little green to the foliage, a touch of bright color to the flowers and a tint of blue to the sky.

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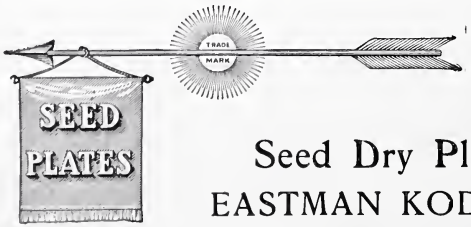
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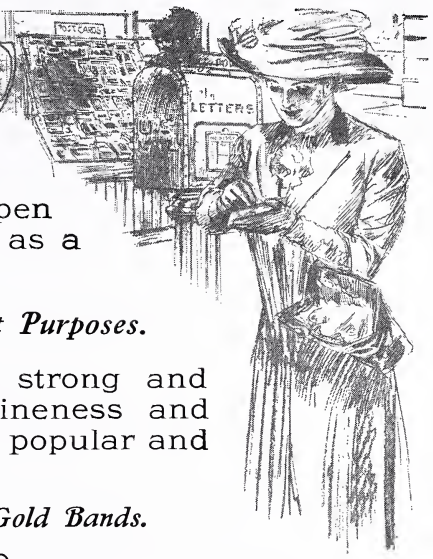
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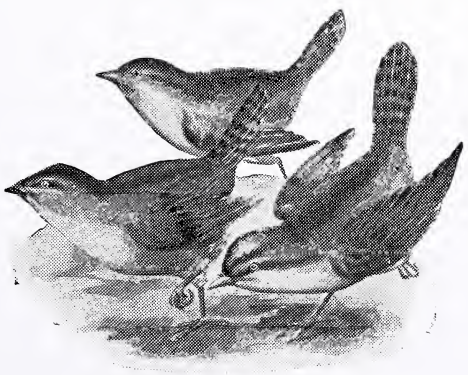
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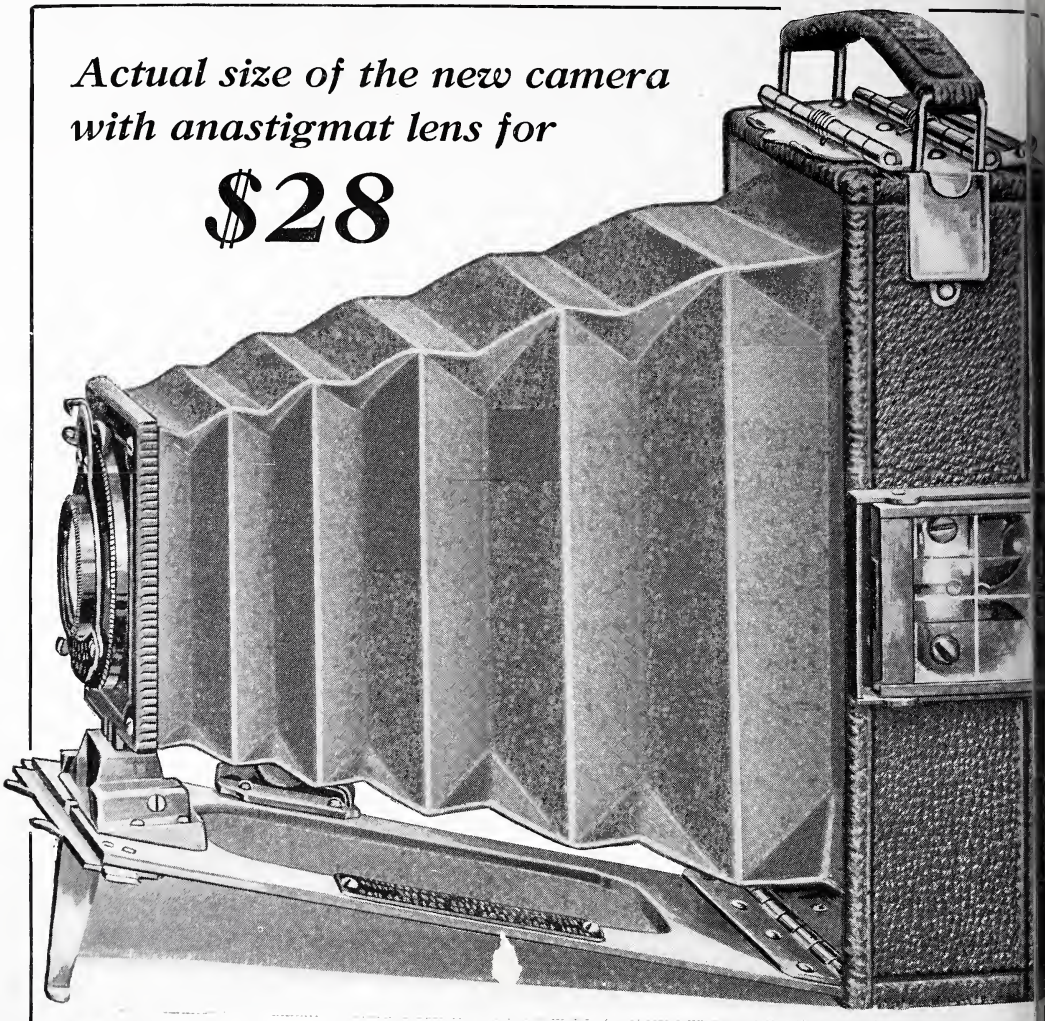
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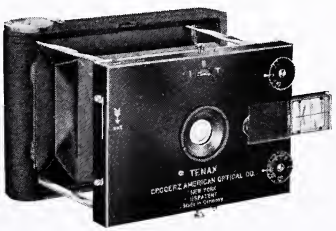


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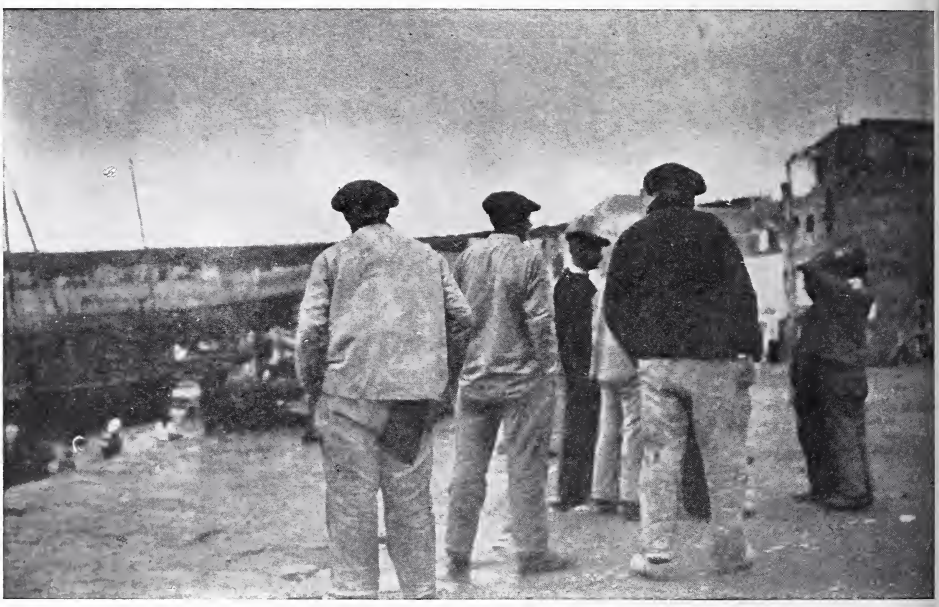
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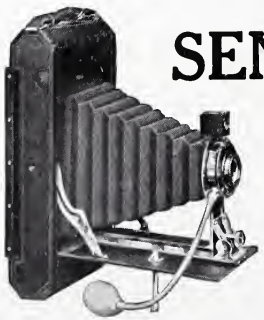
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"I have just arrived from Bridgeport, and naturally saw the ANSCO booth first. I want to say that if the rest of the exhibits come up to this standard it will sure be a mighty good convention."—J. P. Haley, Bridgeport, Conn.

"I had never been able to get what I wanted out of any paper until I struck CYKO, especially for sepia work and I don't believe there is anything to equal it. Certainly the ANSCO exhibit is a clincher as to what can be done. Have no trouble in getting any range of tone or anything of that kind."—C. E. Smith, Evanston, Ill.

"In this exhibit you have a wonderful collection of the best photographers' work and exceptionally well arranged. I think these prints register the values of the tones most beautifully."—Miss Mary Carnell, Philadelphia.

"CYKO is the finest exhibit. Don't think there could be a better exhibit altogether; in fact, it is a book of revelations."—Victor Georg, Springfield, Ill.

"The finest ever."—Frank Bacon, Philadelphia, Pa.

"It is the big show."—Andy Rosch, New Rochelle, N. Y.

"I think the CYKO exhibit is great."—B. Frank Moore, Cleveland, O.

"I think it perfectly beautiful."—Rockwood, Jr., New York City.

"The CYKO display at the thirty-second Convention I think is very fine, and I use CYKO in my studios exclusively."—W. F. Core, Cincinnati, Ohio.

"CYKO has the good qualities of carbon and platinum combined. It represents the delicate tonal qualities of carbon and the pictorial effects of platinum."—H. L. Bowersox, Cleveland, Ohio.

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"The CYKO exhibit is simply perfect and a great treat to me."—W. G. Mandeville, Louisville.

"We use CYKO paper in most all of our portrait work, preferring the CYKO sepia, as it seems to be the most attractive to our customers and inducive to good prices. The exhibit here is beautifully arranged and every picture has charm. CYKO paper makes a photographer independent of weather conditions. Melvin Sykes' picture, 'The Spirit of Music,' is one of the greatest that has been produced in pictorial photography: I understand that Mr. Sykes uses CYKO exclusively in his business."—William R. Rau, of Philadelphia.

"I think the Convention is up to the standard, at least, although I am not much of a convention man. I am very much pleased with the ANSCO exhibit. CYKO paper is good enough for me."—N. Brock, Asheville, N. C.

"I think the exhibit is beautiful and I do not see how it could be improved. It represents the best photographers in the world. It is simply beyond criticism."—H. B. Schaeffer, Altoona, Pa.

"The ANSCO exhibit on CYKO paper is simply wonderful."—Miss J. C. Reith, of the Strauss Studio, St. Louis.

"Finest exhibit in the house."—E. E. Doty, Battle Creek, Mich.

"I think as far as the Convention as a whole is concerned it is the most successful that has ever been held and the prints on CYKO paper have been said by critics to be the best in the Hall."—B. C. Guttenstein, Milwaukee.

"It is exceedingly fine in every respect and the best display in the Hall. I use CYKO paper very extensively in our work and exclusively when desiring sepia tones."—M. S. Wildermuth, of Stearns, Wildermuth & Stearns, Wilkes-Barre.

"After examining the entire exhibit of this Convention I feel that the CYKO exhibit is the best at the present Convention. It shows entirely new ideas and is thoroughly deserving of the recognition and comment of the photographers of America."—D. D. Tennyson, Litchfield, Ill.

"It is a splendid exhibit. Some of the prints I have seen made on other mediums from the same plates are weak and insipid as compared with the prints made on CYKO *in the* ANSCO exhibit."—I. Buxbaum, former President of the Photographers' Club of New York.

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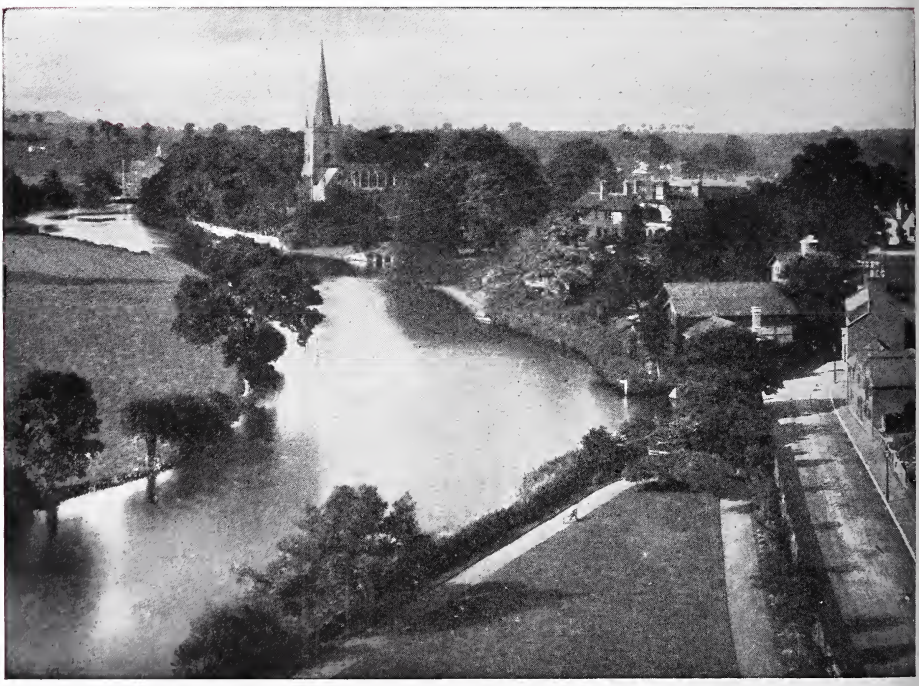
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135 W. 14th Street, New York.

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PRESIDENT LARRIMER of P. A. of A. *by Ryland W. Phillips*

CONVENTION NUMBER

The Photographic Times

With Which Is Combined

Anthony's Photographic Bulletin

VOLUME XLIV SEPTEMBER, 1912 NUMBER 9

A REVIEW OF THE PICTURE EXHIBIT AT THE PHILADELPHIA CONVENTION

BY SADAKICHI HARTMAN.

Official Art Critic of the P. A. of A.



THIS was the first time that the pictures exhibited at the annual conventions of the Photographers' Association of America were passed upon by a jury. The jury was composed of George Graham Hollaway, G. W. Harris, and Ryland W. Phillips. These gentlemen must have been engaged in a most strenuous process of gleaning, as hardly more than five hundred prints were on exhibition while the attendance, even on the first day, exceeded thirteen hundred photographers, and all members were entitled to submit two pictures. Apparently many photographers did not care to take the risk of rejection, while others, and among them many of our leading professionals, preferred to be represented in manufacturers' exhibits.

The Ansco people made a particularly good showing, and anybody anxious to get a fair idea of the present status of American portrait photography had to study their group exhibits of workers like Kasebier, Goldensky, Towles, Core, Sykes, Steffens, etc., as seriously as the official exhibition on the floor above. The nine reproduction enlargement prints of Margaret Cameron, one of the pioneer pictorial photographers of England, and the German invitation exhibit of the works of well known photographers like Milsdorf, Lichtenberg, Traut, d'Ora, Skowranek, Woltschak, Erfurth, and, of course, the irrepressible Dührkoop, lent a special note of interest to the pictorial feature of the convention.

It afforded an excellent opportunity for a comparative study of German and American work. Dührkoop and his Teutonic colleges have not invaded America in vain. Their influence is noticeable in all recent work. It is, however, not so much the adaptation of a particular style of representation, as a general striving for pictorial effects and a breaking away from old studio traditions. American portraiture was shadowless until the Germans showed us the advantages of strong and novel light effects, and the use of the shadows of figures as a picturesque and decorative element in the background. The German work is particularly noteworthy for the apparent facility of "invention," and our workers have profited by it and are now indulging in a greater variety of poses, attitudes, light and tonal arrangements. Also group portraiture has undergone a decided change. Making these statements the writer does not mean to convey that the American photographers copy the German. No, they merely see what other people are doing, and they endeavor to do the same, to discover new pictorial possibilities.

The Germans in turn profess to have been influenced by the Photo-Secession. No doubt they have been, but the impressionism of a Steichen and Coburn is so far remote from normal everyday portraiture that it had to go through an amalgamating process and the Germans performed this task. They apparently solved the problem of combining art elements with the practical demands made on the average portrait photographer. Hand in hand with this influence which is undeniable went the steady progress of home portraiture.

In looking over the exhibit, and in particular the women's exhibit, it did not take long to make up one's mind that home portraiture has come to stay. It is no longer a mere fad or a pastime for advanced amateurs, but a business proposition that is of interest to every photographer. That home portraiture plays an important part in modern portrait photography is largely due to women. They carried the practice of photography into their own homes and from there to others. The first use may have been a strictly material one. They did not fancy the routine work under the skylight and so they experimented in ordinary dwelling rooms and in the open. (A picture like Edmonston's bride picture would have been impossible, a few years ago. And in this way the women photographers—Mathilde Weil and Mrs. Schütze and so many others, and more recently Jane Reese and Agostine Strickland—came to do most valuable pioneer work. They made a step in advance. They cleared the atmosphere from artificiality. Slowly, but persistently, the old studio traditions crumble. The painted and painted-in backgrounds give way to natural surroundings. The attitudes become less posy, more graceful and animated, and the facial expression steadily gains in spontaneity and character.

There is a general tendency throughout the country for more pictorial compositions. This ambition is beneficial in as far as the art side of portraiture is concerned, but it is detrimental to character delineation. It is astonishing how rare a simple straightforward portrait is to-day; at least they do not seem to be sent to the exhibitions. The professionals all prefer to be represented by something that is out of the ordinary. And true enough, an exhibition of ordinary routine work would not be particularly exhilarating.



A PROFILE PORTRAIT

by L. J. Buckley,
Binghamton, N. Y.

But why always try for a special space arrangement, as we notice for instance in the Phillips prints? Is the portrait of a young girl, by Mary L. Smith, not more convincing? The ten pictures selected for the Association Report, by Gertrude Kasebier, New York; Nancy Ford Cones, Loveland, O.; Jane Reese, Dayton, O.; Imogene Cunningham, O.; Dudley Hoyt, New York; Pirie MacDonald, New York; E. E. Doty, Battle Creek, Mich; Kajiwara, St. Louis, Mo.; J. H. Garo, Boston, Mass.; Victor Georg, Springfield, Ill.; were selected for pictorial merits rather than technical and photographic qualities. Gertrude Kasebier indulged in VanDyck stunt, a costumed figure of a cavalier with a background of unusual animation painted in with the dash and bravura of an inspired black and white artist. It may be art but surely is not photography. The same may be said of Garo colored gum prints. Victor Georg, Jr., an exceptionally talented camera worker, won out by some background arrangements à la Whistler, and Kajiwara by a beautifully posed lady, which, however, looks more like the portrait of a gown than of a person as the face is hardly visible. Normal character delineation was furnished only by Pirie MacDonald who is satisfied with being a "reader of faces" which is after all the true vocation of a portraitist, no matter in what medium. The awarding of these prizes must be rather confusing to the average photographer of the small towns, as it is well nigh impossible to earn a living by this fastidious high-strung work. In Germany it seems to be different, where even small towns of thirty or forty thousand inhabitants have their symphony orchestra, stock company and art gallery. There is, no doubt, a demand for truly artistic delineation in such communities, but it is quite a different proposition in this country.

And how simple the Cameron prints look in comparison with all these pictorial stunts. It seems after all that the photographs that represent celebrities last the longest. Their images are cherished by posterity, while the ordinary portrait has but little chance for further consideration except as a relic of the past, and even then it has to be exceptionally good. Most of Mrs. Cameron's subjects were celebrities (the nine prints on exhibition represented Tennyson, Carlyle, Lord Justice James, Joachim the violinist, Darwin, Herschel, Browning, Longfellow, and Watts) and that may explain a good deal of the charm and interest these old prints have for us. And yet there must be more than that. Margaret Cameron was an artist in feeling when she took up photography. She knew the laws of composition and had a knack to seize a personality in the simplest manner possible. That is, she did not indulge in the present pictorial tendency, but utilized facts that were worth telling, and that is the reason why her work lives to-day. It would be difficult to state who of our best photographers will represent our period fifty years hence. In my opinion it points towards Pirie MacDonald and Steichen, who are both photographers of celebrities, types and personalities. But neither of them has the directness and simplicity of Mrs. Cameron. Pirie MacDonald is too academic and allows himself too little variety of expression, and Steichen is just the opposite, too psychological as an interpreter and too much concerned with painter-like effects.



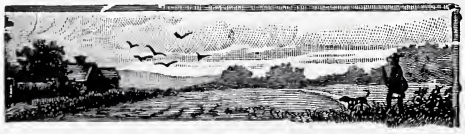
MAN READING

by Hansbury,
Philadelphia, Pa.

Looking over the list of names of the official catalogue we find that despite the elimination process, most of the regular convention exhibitors were represented. Towles, Pach, Goldensky, Mishkin, Bradley, Buckley, Core, Kochne, Hansbury, Lifshey, Mary Carnell and so many other familiar portraitists too numerous to mention—were all in evidence. Their work alone would be sufficient to make any exhibition interesting. But there were quite a number of newcomers as, for instance, Lerski, of Milwaukee, who apparently strives for strong light contrasts. The very opposite was furnished by J. Edward Rosch, of St. Louis, who possesses the peculiar gift of rendering detail with charming delicacy. The flowers and embroidery in one of his pictures were worthy of Bague, the French painter, who even excelled Meissonnier in miniature representation.

An excellent portrait of old Mrs. Gilbert, formerly of the Augustus Daly Co. was furnished by J. A. Bill, of Cincinnati. It was one of the few masterpieces, art and portraiture at the same time. Dudley Hoyt's drapery effects were excellent, as usual. He has quite a following throughout the country, but none of his disciples has mastered his peculiar mannerism in the same satisfactory manner. Other specimens of straight portraiture that deserve special mention were sent by J. I. Vranken, of Vinona, Minn; B. C. Golling, of St. Paul; the Sherve Art Shop, Worcester, Mass.; and George Wonfor, of Camden, N. J.

C. M. Hayes, of Detroit, who has made a reputation with his bride pictures, succeeded in inventing another new scheme of arrangement for treating this hackneyed but well-paying subject. J. W. Porter, of Youngstown, N. Y., is still setting the pace for dark tonal schemes. Walter Bacharach was represented by some excellent home portraiture, and pictorial work on the popular order was furnished by Joseph Knaffl, the Baker Art Gallery and D. J. Bordeau, an excellent animal photographer. Goldensky's nudes were very much admired. They show a knowledge of the pictorial possibilities of the human form and skill in the handling of fleshtints worthy of a painter. It is impossible to mention all the works of merit. The average excellence was exceptionally high and President Ben Larrimer deserves a vast amount of credit in bringing together such an interesting and instructive exhibit. And it would hardly be right to conclude this article without mentioning the work of Giffin, Beach, Ellis, Partridge, Kajiwara, Feldman and Dooner, and in the women's exhibit the prints of Nancy T. Cones, Agostine Strickland, Helen Francis, Imogene Cunningham and Jane Reese, one of the ablest women photographers in the country, who combines artistic ambition with technical excellence.



HOME PHOTOGRAPHY

BY PEARL GRACE LOEHR.

(*An Address before the Women's Federation of Photography, at Philadelphia.*)



IN coming before you to discuss the matter assigned to me on the program, it seems well to state the limitations to which it is confined. In this talk I am speaking to some person who, desiring to enter home photography, needs certain information concerning it as a business, to aid her to make a decision to enter the field or to remain where she is. It is such information as I needed when I made the venture, but which I could obtain from no source, and it is given to you with all the limitations.

What such a person needs to know is:

First. What is home photography as distinguished from studio work?

Second. With what equipment can one venture to begin a business?

Third. Is it a work for a woman?

Fourth. What does it promise as a business venture?

The amount of capital required.

Time it takes to establish a business.

Method of securing customers.

Turning to the first point, home photography is that branch of the work in which you go out to the business instead of the business coming to you. You go to the home, and there photograph persons amid the surroundings to which they are accustomed. You take your outfit and go into a house you have never seen, and the keynote of your work is your ability to adapt yourself to the unseen force which meets you upon crossing the threshold of that home.

In studio work the people come into the photographer's working place, thus making the subject adapt herself to your surroundings, which are new and strange to her, thereby causing a reserve and a stiffness on her part. This gives the photographer such dominating influence that it often entirely submerges the individuality of the subject, and as a result for your work you have a technically fine negative, of a beautifully posed, but characterless figure.

In home work, the adaptation to surroundings is wholly on the part of the photographer, and because you have entered their homes, on their invitation, makes the subjects meet you with a cordial unreserve, which, in one sweep, throws open to you the *real self,* such as hours of studio work can not bring forth.

In the studio there are brought together certain chairs, tables, draperies, backgrounds and other studio accessories. The light is planned to meet your needs, and all things are arranged according to your direction. Into this atmosphere which you have created, comes your subject and she is asked to be natural and to feel at home. Naturalness and ease are essential in order to obtain a characteristic portrait, so why not go into the subject's home and in the midst of the atmosphere created by that subject, in the accustomed chair, with the favorite work, picture her, because there she will unconsciously give forth to you, in freedom and unrestraint, her individual characteristics. In other words, the people and their homes have dominated you, and you, the photographer, forgetting the tools with which you work, will make of those people *real portraits,* revealing them as they are.

In the studio you know your light. You know its changes for every hour of the day, you know that certain handling of screens and backgrounds will give certain effects; in fact, you know everything you can do is done with the light and the handling becomes almost automatic.

Not so in home photography. Realize that home portraiture is a distinct class in photography and has its own charm in individual lighting. Being so, we should strive to work for the interesting things that are there, and to let the conventional light remain in its place in the studio.

The light with which you have to work may come from one window, it may come from many windows, on one, two or three sides. The room may be light and airy in hangings, or it may be dark and somber—this situation, be what it may, you must train yourself to grasp. It is no easy problem. Actual experiment alone can give you the knowledge in handling the home light. No two homes are alike, and conditions are often encountered that almost baffle the experienced worker.

Sometimes the flash must be used as an auxiliary. In working with the flash a few trials will show that placing it near the subject will give rounded lighting, while further away gives soft, flat results. Many workers prefer to use it in a darkened room, but the most interesting of all is to use it only as an aid in making instantaneous exposures with daylight lighting. It is well worth while to make a study of the flashlight for the interesting things it can do.

To be a home photographer means work. There is an engagement, possibly for out-of-town work. This means early rising, with heavy grips containing your outfit, you take street cars, subways, ferries, and catch a seven o'clock train.

Perhaps two hours later you enter a strange home. In that first entrance you must grasp what you have to battle for or to battle against. Every condition may be against your getting the proper light upon the spot which you want for your subject. Furniture must be removed, pictures taken down, if they interfere; you are taken to the nursery to inspect and to pass judgment upon the dearest baby in all the world; you are asked to select the dress not only for the baby and big sister, but for the mother as well; you are shown father's pictures, great-grandmother's portrait, some heirloom handed down



A FULL FACE PORTRAIT

by Mary Carnell,
Philadelphia, Pa.

by ancestors which may be used as an accessory, and each moment you are getting closer and closer to the real home life of the people.

You may have sittings from each member of the family, and possibly each in a different room, "upstairs, downstairs," while you have been working. The samples you have taken with you have so interested the mother that she feels that she must do her friend and neighbor the favor to let her know what a fine opportunity is open to her to get their baby's picture, and the neighbor, and possibly a number, come in, view the samples. Mrs. Jones decides that while you are there, and there is plenty of time, she will have the baby photographed, and you go into another home, possibly more that day. Late that night, even at midnight, you reach your home, and thus end one day of home photography.

EQUIPMENT.

You say, "I believe I could do that, but what equipment must I have?" The equipment essential to conduct a business, I found, much to my surprise, to be very simple. It can be as reasonable, or as expensive, as the worker wishes to make it. There are now home portrait outfits which make it very simple for the beginner, but I am going to tell you what I worked out four years ago, and am still using.

First, of course, comes the camera. This should always be one doing 5 x 7 plate work. It can be an inexpensive folding box camera, or what has proved most satisfactory to me, a 6½ x 8½ view camera. This camera can be fitted with a special back for 5 x 7 work, thus allowing a larger size to be made. You will find a camera of this size is preferable to a smaller, because it carries with it a business-like air, which seems to impress people that you are really professional.

Any camera selected will have to be fitted with a lens and here again the element of cost enters. There are many fine lenses advertised for home work, and the only thing to do is to decide on the amount you can invest, and get the best you can find. In making a selection, bear in mind that there are several things a lens must do. It must be quick, and it must be wide angled. Perhaps the most exasperating thing in all home work is managing the tripod. But there is now a home portrait camera stand concerning which too much can not be said as to its adaptation to a pressing need, and for ease and satisfaction in handling.

With this outfit some good materials should be carried for plain backgrounds. Many workers do not care to bother with this item, but expect to find in the home things to help them out. But it means much for the success of your work to go thoroughly equipped and not to borrow even so much as a sheet, two of which should be carried, not only for backgrounds but to be used, when needed, as reflectors. Art linens and many things in dress goods, in soft greens, browns and greys prove most satisfying as to tone, and by sewing small leaden weights on the lower edge you will always have a well stretched background. A camera, a tripod and a background give us the needed equipment for home work with the "grown ups," but what of the little ones upon whom our business really depends?



HOME PORTRAITURE *by May L. Smith*

For them, we have yet to add the most important thing, the thing that stands for success in children's work in home photography—the flashlight. In the freedom of its own home all the cute and cunning ways of the child are before you and it is only with the flash that it can be followed about and caught in unstudied naturalness while doing, in its own way, the things it enjoys.

Your flash lamp must have an umbrella, or other arrangement for diffusing the light. It must be connected to the camera in such a way that one pressure of the bulb works the shutter and ignites the flash. Because of the difficulties in home lighting and the use of the flash, I think you will find orthonon plates will give the best results.

Possessed of the equipment to carry with you, then come the appliances at home. These are so simple that you ofttimes wonder why more women do not take up a work that can turn out such fascinating pictures by way of broken pitchers, the kitchen and the bathtub.

THE PHOTOGRAPHER.

But for a woman to secure this outfit and make a successful business of home photography requires more—here the personal equation enters into the question. An amateur can not, with such ease, enter the profession. She who would undertake this work must have a knowledge of the processes in every department of the work; therefore she must be a professional or there must be acquired accurate and sure knowledge, under the direction of professional workers who know, and knowing, can guide the beginner through all the stages, to the point when she has become an intelligent worker in the profession, from putting the plate in the holder to the finished picture, ready for delivery.

As a supplementary training for the home worker and all workers should be the study of art—the study thought usually to belong only to the painter or to the sculptor. All realize that the future success of photography will rest upon those who have the most intimate knowledge of art in all its forms. Actual work in drawing and in composition should be taken up, if possible, for the training and ability it gives in self-expression. To every one is open the study of pictures, and good books on what makes a picture and how to study a picture are in every library, and are not too expensive for even a struggler to own. Too much can not be said of the influence upon us of the wonderful pictures of worldwide fame, but in our enthusiasm for the perfections of these masterpieces we photographers are liable to make one mistake. Study of pictures does not mean to memorize them for composition, and with the camera, make reproductions.

The study should bring to us not only the knowledge of composition and of color, but the inspired personal feeling of the painter—the things suggested and left for us to carry on, the thing that has made the picture live, because each one studying can, fill in the unsaid. This study of art, as I mean it, is not an end, it is only a means to your own profession, photography. When the facts for which you sought the study of art, or pictures, have become so intimate a part of your mental stock in trade that they are a part of you—for-



INTERIOR PORTRAITURE

The Campbell Art Company,
Jamestown, N. Y.

get each picture and its composition as completely as if it had never existed, and taking your subject in hand, express what is within you with freedom. Reach the real personality of the subject, not by poses, but by that thing for which we can find no formula—your own personality plus that of the individual before you. Be true to your own feelings, and if you want to do a thing out of the conventional manner of doing, do it with such sureness and such knowledge of the fundamental points that make a picture, and of the photographic materials you handle, that what you produce will stand respected though it be faulty.

Fortunately, the degree of merit reached by camera craft to-day, shows that the highest qualities of art may be obtained by what was once considered a machine of purely utilitarian value, so, if we fail to reach an art, it is because of our own limitations and not the fault of the tools with which we work.

To the necessary technical knowledge the photographer must have must be added such knowledge of business as will enable one to handle her own business. To this she must call all the culture her good fortune and ambition have enabled her to acquire, and a wide general knowledge, for the intimacies necessary in successful home photography make it needful to know something of any subject in which the patron is interested.

WOMAN'S WORK.

It is a woman's work? Pre-eminently so. Women have a special gift to see, to grasp and to enter into the intimate affairs of the home life. Under no studio conditions is the personal side and character of the worker so put to test as in home work, and it is because of this wonderful play of emotions and feelings in both the photographer and in the subject, that makes home work so abundantly repay for all the patience, and all the intelligence, and all the skill we put into it.

HOME PHOTOGRAPHY AS A BUSINESS.

But, you say, pleasure and interest in a profession is all very well, but what of it as a means of livelihood? Is it a safe business venture from the bread and butter side of the question?

The actual capital invested can be so small that any woman, equipped with the technical knowledge, can make the effort and establish a paying business of her own, but because it is so easy, and so inexpensive to begin, proves often the very cause of failure.

The initial expenses are easy to figure: The lens, camera, tripod, flash lamp and backgrounds. The home stock of chemicals, plates, papers and mounts. The work can be done in the woman's own home, saving studio rent and fittings.

But this is almost balanced by the cost of the trips of you and your assistant in going far and near to reach your subjects. Then you have the added expense of placing the work before the public, and in reaching customers. These expenses require that you have some financial provision when you begin, that your work may not be crippled.

It takes time to put the business on a paying basis. The amount of time will depend upon the photographer, the locality and the grade of work done.



THE WINTER GIRL

by Phillips,
Cincinnati, O.

Some workers tell us they have been able to make expenses from the start. By expenses I mean not only that of carrying on the business but of living as well. These workers have been most fortunate indeed,—exceptionally so. I think you should face the fact squarely that to most women entering the work—if she is entirely dependent upon the business for her income—there will be an indebtedness at the end of the first year, the second year will see its ups and downs, and be a struggle to make ends meet, but the end of the third year should see her with things squared, and the fourth year with means to meet all expenses at the first of the month. This is, I believe, a safe estimate of the length of time to put the business upon a paying basis.

As mentioned, the location enters as a factor. In a small town, where you can be known in a short time, results are quicker, but if you begin in a large city, there must be a preparation for at least three years of financial struggle. I have dwelt upon this because I feel it is our duty as workers to give to our sisters wishing to start such work a sane, honest, truthful statement of all the things before her that she may be adequately prepared for the undertaking.

Being professionals, I speak to those to whom the important thing would not be to find money for the outfit, nor yet the financial aid to stand behind while you are struggling to get a foothold in the business, but you may like to know how to get customers.

REACHING CUSTOMERS.

A business, by women, for women and children, in the homes, carries with it a peculiar intimate charm, and can not be dealt within the conventional manner of business getting. Advertising schemes are not for the home worker, they are of no avail to the woman wishing to reach homes of wealth by the merit of her artistic work. Each woman must get ideas and work them out as best suits her class of customers, and all the surrounding of her business. My experience has proved to me that the best way is the direct approach to some woman through a woman who is her friend. If the friend will speak to your desired customer personally, your way is open. Simply call her by telephone, give your name and business, by whom introduced, and state your desire to show her samples of your work.

If the friends does not speak personally, it is absolutely necessary to have the visiting card of the woman introducing you. This direct way carries you not only past the servants, but the woman has been approached in such a way that she must see you or be discourteous to her friend. Once past the barriers, then it is dependent upon your personality, and upon the character of the work you have to show as to the interest she will manifest.

In this way you must begin with the sure knowledge, never losing sight of the fact that your capital is names, and more names. Every woman to whom you gain access must feel so kindly toward you that she is glad to pass you on to her friends. Thus you go on, with an order here, and an order there, until one day you find yourself in possession of a business; a business with a solid foundation, for it has been built for you by the kindly human interest of people, based upon the merit of your work and your personal worth.

Here, just to show you how small a beginning may be in home photography, I want to tell you that my business started with six letters of introduction, and by this simple method, although a stranger in a great city, I have built up a business.

Home photography is an all-the-year-round business. For some unaccountable reason, unless we name it human vanity, there will be a steady business for nine months in the year. Money panics and presidential campaigns seem to have left little disturbing influence. During the three summer months when people leave town, follow them. Go to some wealthy summer place armed with introductions from pleased patrons, and by using the same methods of business-getting you will find the summer a veritable harvest time—with financial results even greater than what we have come to associate with Christmas work.

A large per cent. of your business will come from out-of-town. People do not like the trouble of bringing children to the city and into the studio. In these cases the time and expense to get one order may be made to cover the cost of several by arranging with the customer to secure you orders among her neighbors and friends, or to give you the names and let you work up the orders.

A seemingly small thing, but one you will find of greatest importance in preserving harmonious relations with your patrons, is the question of price. Have a simple price, one that can be readily understood through correspondence by even the most unbusiness-like of women. Make only two sizes, a small and a large. Charge by the print. A price by the dozen, the half dozen, prices on extra negatives will confuse, and you will always be the loser. Make a price on—say three prints from one negative, and let this always be the foundation order. Then so much a print from any negative. All large sized pictures should be priced by the print only. People like to be able to order just the number they think they want, and the price of three prints will look so altogether innocent, they will not realize the lure you have set.

The crucial point in the business is yet to come, and that is showing the proofs. You must see the customer after the sitting. The proofs must be accompanied by one who can tell how the print will differ from the proof sets. If this is not done, not only will you lose the order as to its size, but you have missed the opportunity at the moment when the woman's personal interest is warmest, and when it will come nearer to you and to your business than at any other time. It will be through the proofs that her enthusiasm concerning your success will reach its height.

I have been giving you the facts that I, from personal experience, have dug from the quarry of human life, and I have pinned my faith to home photography as a business of pleasure and profit for women.



PHOTOGRAPHERS COPYRIGHT LEAGUE OF AMERICA

BY WILLIAM H. RAU.

(*An Address before the Philadelphia Convention of the P. A. of A.*)



MOST of you are, no doubt, familiar with the early history of the Copyright League up to the present time which at the final fight, resulted in the photographic protection secured by the new law that went into effect July 1, 1899.

There is a new Copyright law after that date, but many do not know of it and our League is trying to educate and enlighten its members by giving them a copy of the new provisions in the present U. S. Copyright Law.

It is a very simple matter to secure a Copyright for any picture—all that is now necessary is to publish it with the proper notice of copyright affixed,—after which you must "promptly" deposit in the copyright office or in the mail, addressed to the Register of Copyrights, Washington, D. C., "two complete copies of the best edition then published. Your picture is protected from the moment you publish it with the copyright notice. (Page 7, Sections 9, 10, 12.)

The form of the copyright notice is a big improvement over the old form as it no longer requires that the year is a part of a notice and simplifies the placing of the mark of copyright on the face of the picture.

Further than this, the law provides a punishment for infringement. The limit of a maximum fine of $500 and the minimum of $250, excepting in actions against newspapers—the maximum is only $200 and the minimum $50.

It is now possible, where an infringement is made wilfully and for a profit, to send the infringer to jail.

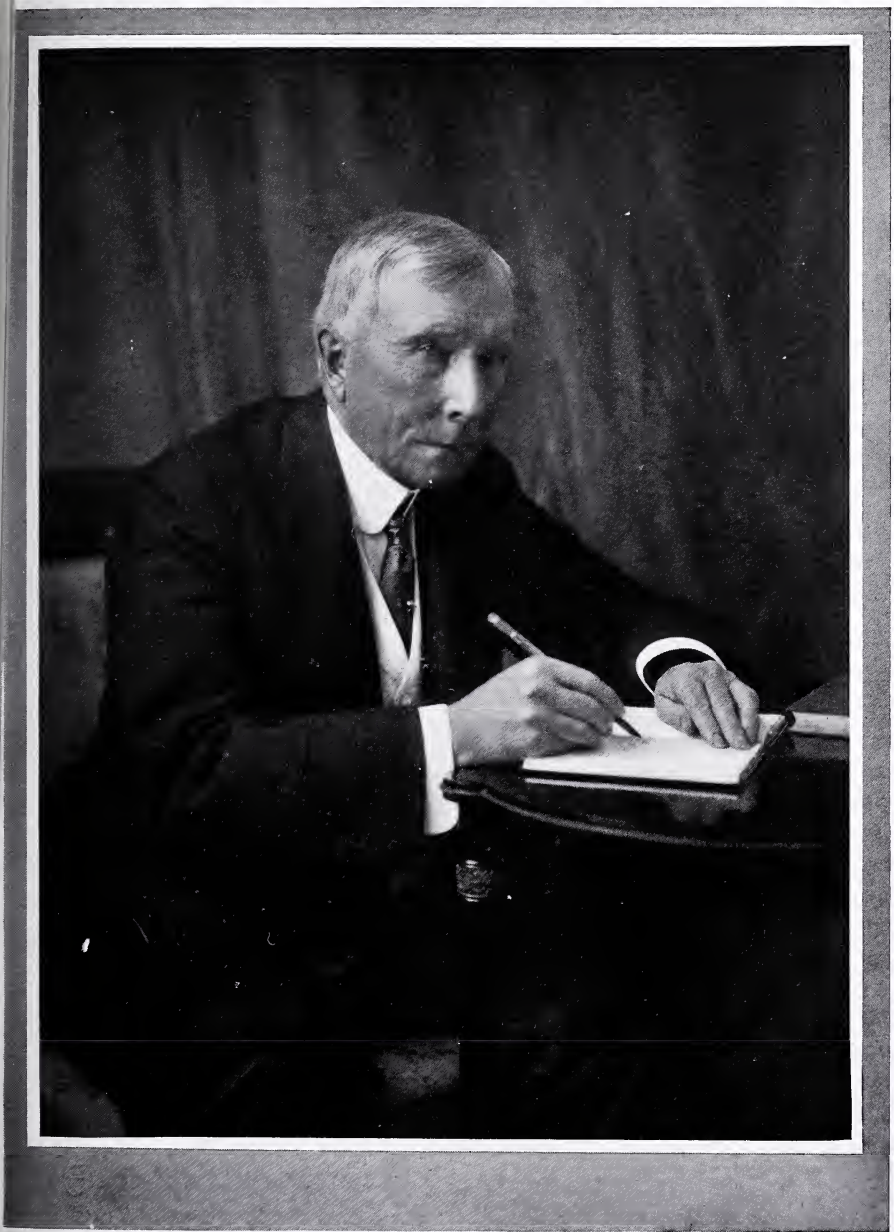
Foremost among the photographers who have helped and fought for the protection of the photographers is Mr. B. J. Falk and Mr. Pirie MacDonald, who gave both time, experience and money, and went frequently to Washington in the interest of the League.

The "Photographers Copyright League of America," is established "to secure and protect photographic copyrights, to suppress piracies, and generally promote the interests of the profession." It furnishes its members with copyright license on which form is the emblem and very much impresses the recipient of such a contract.

I will quote from one of our Western members who is on the Pacific Coast.

"I purchased two books each of the license forms when first published and it is worth while to see a publisher read it, turn it over and then re-read it as much as to say, 'they have us on the run.'" I have delivered some work in person to avowed pirates, just to see them squirm.

The copyright law is a twin brother to the patent law.



A GOOD PORTRAIT *by Edington*

Copyright applies to your photographic creation just as the patent applies to the mechanical device.

This law is for you, so use it.

Would you attempt to manufacture and market a mechanical creation without first protecting it from duplication?

Then why do you market your choice photographic creations, whether they are portrait or landscape, without first protecting them from duplication? Copyright the subject, and you have complete control of the prints from that negative. Exclusive reproduction of a given photograph is what the publisher wants and he is willing to pay well for the exclusive rights. Copyright will make your work exclusive. Get the habit.

How do you secure a copyright?

By sending, for each subject, a fee of 50 cents, two prints and a properly filled blank to the Register of Copyrights, Washington, D. C.

Simple, isn't it? Address the same office for copyright blanks. They cost you nothing.

Copyright applies to the negative as well as to each print.

Mark your negative with the legal notice and each print is protected from infringement.

Send at once to the Register of Copyrights, Washington, D. C., for a copy of the new copyright law. It costs you nothing. When you get it, read it. You will see dollars in it for you.

The Photographers' Copyright League of America is, as its name implies, truly national, as much so as the copyright privilege itself.

Do you need its protection?

What is that protection?

A trained legal department that will stand ready to fight the infringement cases of its members on the basis of a contingent fee, giving equal protection to both rich and poor.

Many photographers have felt too poor to enter into a legal battle, especially under the old law, even when they had a clear case, and have allowed the piratical publisher to go free. This need no longer happen when our legal department is assured.

Your residence cannot be so remote but that the league influence will benefit you and the legal department will assist you. Join at once.

Membership costs you only $1 a year, with no added dues. For this small fee you will have the full benefit of a legal department that is trained in the handling of copyright infringement cases.

Can't you see the personal advantage of membership?

If you begin to copyright your negatives you will at once see the advantage to you of league membership.

The privilege of the use of the league license form in the delivery of your copyright prints makes membership imperative.

Don't think that the Photographers' Copyright League is an institution to which outsiders can turn when trouble arrives. Only members are entitled to the use of the legal machinery. It is well worth the $1 a year to have this

weapon at hand and remember that the larger the membership, the less the chance of trouble. You and I and Jones and as many others as are able to make negatives that are worth copyright protection, and all those that are striving to reach the goal of success, are eligible to membership, and it is our collective dollars that will make a strong legal department possible in the immediate future.

If 60 per cent. of the representative photographers in the United States would join the league at once, and prominently display in their reception room the league emblem, together with the declaration of the principles for which the organization stands, photography would gain in public respect and infringements would cease. Isn't it worth $1 a year to have no copyright trouble?

A strong national membership using the league license form in the delivery of their copyrighted work would have a greater influence in adding dignity to our profession in the minds of the publishers, than anything else that can be devised.

As a declaration of principles—I would suggest:

Improvements in the copyright law as changing conditions may demand.

Prevention of adverse legislation for the benefit of the interests that desire the free use of our creations.

The development of a fixed equitable list of charges for the reproduction of photographs by the different processes, based upon a minimum charge for newspaper use.

The encouragement of increased use of copyright protection, which will result in a better standard of prices.

The establishment of a trained legal department that will stand back of its members in case of infringement.

The general good of our profession:

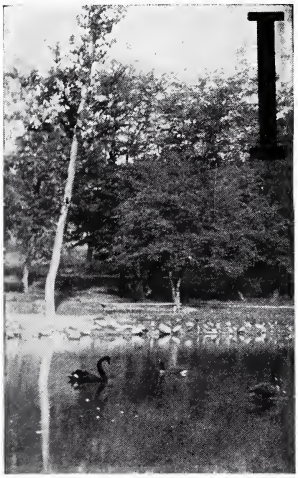
National co-operation for the purpose of the immediate accomplishment of these results.



TO PHOTOGRAPHIC DEALERS

AN ADDRESS BY CARL E. ACKERMAN.

(Delivered before the National Association of Photographic Dealers at Philadelphia.)



IN STATING to you the motives which have actuated the originators of the movement for the organization of a National Association of Photographic Dealers, I wish to impress upon you the fact that the organization as projected is based upon a series of units. In modern times and in modern organizations it has been found impossible to do good organization work by means of a convention which meets but once a year. For this reason the men who have outlined the plan of organization which you will find embodied in the tentative Constitution and By-Laws, copies of which have been distributed to you, have based their expectations for success upon the organization of local sections, such as the Photographic Dealers' Association of New York.

"It is intended that these local sections shall constitute entirely separate and distinct units which shall operate under their own rules and regulations, and in conformity with the laws of the National body.

"To increase the scope and power of the local organizations, it has been planned that State organizations be formed when a sufficient number of local sections have been organized to warrant such action.

"The object and purpose of the National Association is to bring together once a year the representatives of the State and local sections, so that action can be taken upon matters of large importance and of such character as to warrant National action.

"The annual meeting in addition to its legislative functions will furnish the opportunity of assembling a body of distinguished men in the industry to advise with us and give us the benefit of their experience in other and similar fields.

"Waving aside for the moment consideration of the academic reasons for the formation of a National Association of Dealers, let us consider the economic reasons for such an organization. If you will take the trouble to look through the business directory of your town, you will find that practically every prosperous body of retailers has its own organization. I speak advisedly when I say prosperous, because there are a number of industries which do not possess organizations which appear to be prosperous on the surface, but which under the surface are unhealthy. I do not mean to imply that associations cause prosperity within a trade, neither do I mean to imply necessarily that prosperity within a trade leads to organization.

"The conclusion I draw is that a live, snappy body of retail merchants



Copyrighted, 1912
Wm. H. Rau

PHOTOGRAPHERS AT ATLANTIC CITY

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handling one line or allied lines of goods can do business far more profitably with an organization. Some of the members of associations have told me that the actual saving to them through their local organizations represents thousands of dollars annually.

"The profit in the co-operative buying of non-competitive goods is alone sufficient to justify organization. By this I mean goods purchased in blocks for the benefit of the members of the Association and not to be resold. Take the items, for instance, of paper and twine. These are small factors in business, yet if the purchase of these two items were placed in the hands of one buyer, he to contract for the year's supply for all members of the local association, see what the saving would be. Carry this still further through the items which could be arranged for by contract—printing, stationery, packing cases and material, local deliveries, fixtures, and all non-competitive supplies used by the retail dealer and you will readily find that great saving can be effected.

INCREASING THE STANDARD OF HELP.

"There was a time when photographic salesmen *knew* photography, and were enabled to give all necessary instructions to the beginner. To-day, in spite of the greatly simplified processes, the practical instruction sheets which accompany all the apparatus and the multitude of instruction books distributed profusely by the manufacturers, the standard of the photographic salesman has declined. One reason for this is the absence of any means of intercommunication between the dealers themselves.

"With the growth of this organization will come greater consideration of the problems of salesmanship which confront the individual members. With these discussions it follows that there will be a general awakening of interest and a friendly competitive spirit in the advance of ideas of value to the membership, and one of the first effects that these discussions will have will be the raising of the standard of the photographic employee.

SHOW WINDOWS.

"The average photographic show window constitutes an absolute reflection upon the intelligence of the members of the industry. If the windows are not filled with second-hand outfits, placarded with bargain prices, they are filled with a meaningless array of cameras, accessories, and photographs which mean little to the passer-by and nothing to the average customer. It would pay the members of the Association thousands of dollars to employ a skilled instructor in window decoration to conduct a series of demonstrations at the next convention.

LEGISLATION.

"In every state in the Union new laws are being ground out at regular intervals. In the past what has been everybody's business has been nobody's business, and in many states there exist to-day statutes which are contrary to the interests of photographic dealers.

"Even now there is legislation pending in Congress which should receive the earnest consideration of the photographic dealers.

"The patent laws are coming in for a wholesale overhauling, and as the business of the photographic dealer has been largely built up through the sale

of price-restricted patented goods, the passage of some of the projected legislation would have a far-reaching effect upon his business.

"With a strong national organization and local sections scattered throughout the country, legislation could be watched and the activities of the politicians be offset.

INSURANCE.

"It is a fact that in many portions of the country the photographic dealer is paying the same rate of insurance that he has paid for generations. The rate upon photographic establishments is high, and many are convinced that the rate is based upon the belief on the part of the insurance men that the photographic dealer to-day carries the same dangerous chemicals in stock which he carried twenty-five or thirty years ago. Proper attention paid to the insurance question will mean money in the pockets of the dealers.

CIVIC MATTERS.

"In every city of the country there is a growing spirit of civic pride. The 'city beautiful' movement is growing more and more popular. What could be of more interest to the local sections of the National Association of Dealers than to participate in this forward movement? Are not the photographic dealers the foundation head of art spirit in their communities? Do they not educate the people to see the beautiful things in life and in nature? Are they not engaged in upbuilding the love of beauty? How seemly then it is for them to engage in this work in their own locality?

CO-OPERATIVE ADVERTISING.

"At certain seasons of the year there is a splendid opportunity for co-operative advertising, not only in the newspapers and street cars, but through the medium of electric signs in prominent spots. It is seldom that one dealer is enabled to make his advertising appropriation go as far as he would like it. Combine the whole into one stirring campaign and see the difference.

"The establishment of a trade credit bureau is a natural sequence of national organization. At the present time the photographic trade does not possess a single means either of offense or defense against irresponsible debtors. It has no system by which it can secure freedom from unjust claims and unlawful exactions, and it is without power to extend aid to its members in the collection of their just debts.

"Credit bureaus are being handled by other organizations with vast satisfaction and immense returns to their members. The modern association credit bureau is not a mercantile agency, nor is it an enterprise for private gain. To a large extent the affairs of these bureaus are handled by boards of directors who serve, with one exception, without compensation.

"In one trade alone I am told that the collections effected in one year purely through the moral effect of the organization and without recourse to harsh methods, amounted to over half a million dollars. For the information of the Association I have gathered the complete records of several of the most successful credit bureau in the United States and have placed them on file with the temporary secretary.

"In conclusion, let me say that the formation of this National Association will do more toward enlarging the friendly intercourse between the individuals engaged in the trade than any other possible agency. The photographic dealers of America are far above the average shopkeepers. They are men of importance in their own communities, and they are of wonderful help in the increase of human knowledge, and they should meet with one another upon the common ground of the common good.



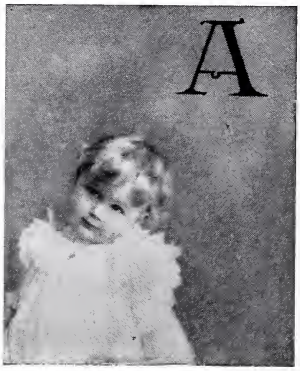
AN OVAL

by Kochne,
Chicago, Ill.

COLOR PHOTOGRAPHY

BY CLARISSA HOVEY.

(A Paper read before the Women's Federation of Photography, at Philadelphia.)



A COLOR-PHOTOGRAPH does not necessarily mean a *picture* any more than a platinum print does, if the composition, lighting, and all that goes to *make* a picture are bad. I presume many of you have thought, as I have, that when the process became better known, and everyone made color-plates, it would be cheapened, and an autochrome would be an autochrome no matter who made it. That illusion in my mind, was entirely dispelled when I had the great treat of seeing 200 autochromes exhibited in New York last February at the Convention of the Professional Photographers' Club, of New York.

The process of finishing the plates is so mechanical, it would seem, on first thought, that when *that* was conquered, *any* one could produce a masterpiece. One of the most interesting things to me in this wonderful exhibition of 200 autochromes was the *great* individuality in the work. It seems hardly possible that autochromes *could* be of such different qualities that you could identify the plates of the different photographers almost as easily as you can identify paintings by artists of different schools. There were all kinds there, from a plate of the most charming, elusive, delicate rainbow, caught in the Grand Cañon of Arizona (one of the most delightful autochromes I have seen) to the regulation, stereotyped, flat-lighted, scenic background with carved pedestal, stone-wall, and heavy, gaudy drapery accompaniments. There were some perfectly magnificent autochromes there, and *some* that, *personally,* I should have thrown in the waste-basket. The exhibition was a great treat and inspiration, and I wish you might all have seen it.

The whole story, after all, is the "man or woman behind the camera." If you have a sense of color combinations, and of composition and posing, you cannot fail to produce some charming plates. Your autochromes will be characteristic of your work, be that original and artistic, or commonplace and commercial. I might tell you exactly how I handle a plate from the time I take it out of the box till I show it in a mirrorbox; and some of you, starting out by yourselves, would produce a much more beautiful plate than I possibly could, and some of you an inferior one. There is a something that lies latent within ourselves that we *must* have to be able to make pictures. A mass of all sorts of colors is not needed for charm. One of my best portraits has the least of vivid coloring in it. Your inclination on beginning will be to photograph a bed of scarlet geraniums, or, with it a portrait, to have your model wear her brightest frock, a gorgeous colored scarf and hold a bunch of Killarney roses. See if you do not want to do that. It is the most natural

thing in the world to find out what the plates can do. But, after you have satisfied yourself on that point, I am sure you will be *just* as interested to see how far the other way you can go and how interesting a plate you can compose out of a plain green woodsy patch or a girl in a simple middy-blouse, or even a man in a black suit, without even a carnation in his coat. At first, men, as autochrome models, did not appeal to me in the least. I took it for granted that, with their sombre clothes, they would not make interesting color-plates. But I have since found that a man can be interesting *even* in an autochrome.

The wonderful beautiful qualities of these plates and the tremendous possibilities in them appeal greatly to me, and I am always irritated when people insist on saying that it is too bad we cannot print them on paper. The transparencies are so beautiful. Supposing you *do* have to go to a window and look through them. You cannot enjoy a miniature across a large gallery, nor could you enjoy Sorolla's enormous canvas of the oxen which is in the Metropolitan Museum, in your own 2 x 4 living-room of your apartment.

I am so enthusiastic on the subject, I want to speak of the charming qualities of the autochrome, such as

Beautiful gradations of color (not simply bright daubs of color);
Beautiful luminous quality;
Transparency in shadows;
Lack of halation;
Beautiful atmosphere haze in the landscapes;
Wonderful perspectives;
Effects of sun and water, the sunlight is *real* sun and the water is wet;
Different colors of water, from deepest blue to leaden gray;
Blue shadows in the snow.

Many of these delicate charms are lost when viewed by a yellow light.

The booklet published by the Lumière Co. is very concise and practical, and by it I taught myself the process. I am going to follow through the outlines of it with you rapidly, hoping that the benefit of my experience on a few vital points may save some of you from adding old glass to your pile quite so rapidly. Those of you who begin now have not half the stumbling blocks we had who took up the process three or more years ago. To begin with the plates are much better in quality, and, instead of 9 solutions which the company hypnotized us into thinking we *had* to have, we now use 2 or 3. The original book of instructions was quite enough to drive anyone mad to simply *read* it, to say nothing of trying to execute the instructions, and I do not wonder a great many gave up in despair. The actual process of development is not difficult, although exceedingly *fussy* and sloppy; careless workers could not succeed in it.

The plates are exceedingly sensitive, and *must* be handled in an unleakable darkroom with the virida yellow and green papers in the lamp. The surface of the plate is so sensitive that it must not be touched with the fingers or rubbed along the plateholder or against the protecting cardboard; it scratches so easily. They are put in the holders glass side out, the groundglass in the camera reversed for focusing, and the exposure made through the appropriate yellow

screen. The plates work much slower than the ordinary dry plates, so much so that for a side-lighted portrait near a window, I should give 20 to 30 seconds exposure when for a regular plate I should give but 1 or 2 seconds.

The exposure you have to determine for yourselves by experimenting, and let me suggest right here that you begin your experiments on lantern slide size plates, so that your dump heap of discarded plates won't reach quite the proportions mine did, nor, incidentally, your purse will not look quite so emaciated. I've found a record of every exposure very valuable for reference, conditions vary so,— the stop used, the light, the month and time of day. You simply cannot remember from one July to the next July, what exposure was correct.

You have your choice of two methods of development: "Fixed-time" and "Controlled Time." I believe in eliminating anything that's confusing at first, and, while by using the controlled time development you can save many plates that are not correctly exposed, I shouldn't advise a beginner to use it. The directions for this method of development,—the table of complicated looking figures to paste on your lamp,—look forbidding, although they really aren't. Like anything, it's easy after you know how. I should advise using the fixed-time development till your heart gets down to normal (if it ever does,—I get excited over every plate I do, to this day). Your trays must be clean, solutions must be filtered or specks settle on the surface of the plates and cannot be removed except at a great risk. The temperature must be taken before every plate (I refer to the temperature of the solution, not the photographer). The temperature is really very important. Have all the solutions, even the washing water, 60° to 65°, and after your darkroom becomes close and hot, stop developing autochromes. A current of air is much better to work in if you can have it. It isn't always possible during July and August though.

The Lumière booklet is very complete, and I won't take time to go into the details of development. There are two distinct developments: the first gives a negative image. I mix my developer from their metoquinone formula, although the developer comes in stock solution ready for use. Their directions for washing 3 to 5 minutes in running water are wild. I should just as soon think of playing football with a wet autochrome plate and expect to sell it afterwards, as to wash it in running water for 5 minutes. I have my washing water in a pitcher and have it the same temperature as my solution, use a tray larger than the plate, and pour the water on very carefully. Otherwise you are liable to have an experience similar to that of an acquaintance of mine. This man phoned me one day to tell me his first experience with autochromes. He ran the water in the tap as cold as it would run and washed his plates under it between developments. As it was in November, the water was in all probability about 40°. In the final washing he said the films of all four plates slid off and down the sink spout. I never wash in more than three waters, and sometimes only one. The film is so sensitive and thin that the difference between the temperature of the atmosphere and that of the solutions, or a difference in the solutions, will cause one of the most tragic accidents an autochrome is liable to—frilling.



A GOOD ONE

by Goldensky,
Philadelphia, Pa.

A chrome alum solution or 40% solution of formaldehyde used 1 to 20 is good to soak the plates in before, during and after development in hot water. After the first development the plate is put in the reversing solution of permanganate of potassium to dissolve the silver reduced by the developer. This permanganate of potassium is a gorgeous purple solution which stains your fingers and shirtwaist cuffs brown, and leaves streaks on the plates if left in too short a time, and deposits specks over the surface of the plate if insufficiently filtered. It's a very unlovely solution, except in color.

The reversal of the image and second development are carried on in daylight. From 2 to 4 minutes completes the reversal. The plate must be left in till no streaks can be seen on looking through the plate. Then the plate is washed carefully again in perhaps 3 waters (not 3 minutes) and put back in the same developer where it stays 2 to 4 minutes, or until all the white has disappeared, and the positive image disappears. Rocking the trays in all stages of development is wise.

After the second development, wash in 1 or 2 waters (1 if the room is hot) and put in a rack to dry. Do not carry the plate when wet through the air at any time. Put it from one tray directly into another. I believe it is best to varnish the plates. I didn't do it at first but I do it now, and think it wise. You can spot them more easily and the varnish protects them. Be sure and use plenty of varnish and use that plenty quickly, otherwise it will dry in streaks. You'll be very grateful to me later for reminding you at this point that gasoline will remove the varnish from your fingers. Also for warning you not to rip off sections of the film when you extricate your fingers from the edges of the plate after varnishing. The plate is then ready for passepartouting.

In the diascopes is the choicest way to exhibit autochromes,—you get every single beautiful quality in that way. Exhibit only your good plates. Many people have received wrong ideas about the possibilities of the plates by seeing poor ones. You wouldn't think of showing a prospective customer a mussy, spotted platinum photograph, but some photographers exhibit some of the worst looking color-plates.

You undoubtedly would like my opinion of the commercial possibilities of color photography. It is simply incomprehensible to me that people do not flock in droves to have color-plates made of their beautiful children and their summer gardens. A great many of my plates that I've sold have been made on speculation. I don't believe, ever, in boring customers with things they don't want, but when a good opportunity comes up during a regular sitting, to make an autochrome (with or without the sitter knowing it), the chances are 9 to 1 you'll sell her one. As you all know from experience, it is incomprehensible what customers will insist on choosing. I've made some charming plates of good looking girls, and parents would be sufficiently indifferent to them to spoil a sale for me. Then, on the other hand, I've made some plates, for which I expected to be sued, and really hesitated whether I should show them to the customer or put them in the waste-basket, and sold them on sight. These

plates are very valuable for copying paintings and miniatures in commercial work.

In closing, I'm going to read you the preface of the 12th edition of the Lumière booklet, and you'll then realize how absolutely unnecessary it was to ask me to talk to you at this convention. It reads as follows:

"The whole Autochrome Process of Direct Color Photography, is extremely simple. Any amateur with an ordinary camera and no extra equipment except a special yellow screen, can obtain, by a method of development almost as simple as for ordinary plates, within 15 minutes, exposure and all manipulations included, a finished color picture, absolutely true to nature. Two solutions only are to be used; they are sold already put up or are easily prepared."

I hope, though, in spite of the extreme simplicity of the process, my personal experience may be of practical use to some of you.

CONVENTION NOTES

BY THE EDITOR.



THE convention was a big one in every respect except the hall in which it was held, which was entirely inadequate for the sessions, the display of pictures, and the exhibits of the dealers.

There were nearly fifteen hundred members in attendance, which is the largest number ever present at a convention of the P. A. of A. It seemed to be the general consensus of opinion, moreover, that it was the best, as well as the largest, convention ever held by the national association, with the possible exception, perhaps, of the one held in Rochester, New York.

The plan of giving no prizes for the pictures shown, which was in force at this convention is a good one and has worked well. It should be continued, as it prevents the wrangling, wire-pulling and bitterness which characterized many conventions in the past.

On Thursday there was an instructive five-minute "speechfest," as it was appropriately called. Special hobbies of a score of experts were explained by them in a symposium yesterday afternoon in the Convention Hall. Each speaker was alloted five minutes, and the gavel fell when his time expired. Valuable information was scattered as the result of the speechfest.

The speakers were Messrs. MacDonald, Core, Hoyt, Lively, Edmondson, Bowersox, Walinger, Golling, Kochne, Abel, Lewis, Parkinson, Phillips, Rau, Holsinger, Harris, Holloway, Schneider, Lippincott, Spellman and Doty.

Sadakichi Hartman, who writes the leading review for this issue of THE TIMES picked the following twelve pictures as, in his opinion, the best ones in the exhibition. There were good authorities present who differed with him.

23. Pirie MacDonald, New York.
24. J. Edward Rosch, St. Louis, Mo.
34. Lerski Studio, Milwaukee, Wis.
44. Victor Georg, Springfield, Ill.
50. Fred J. Feldman, El Paso, Tex.
56. J. Mitchell Elliott, Phila.
59. Kajiwara Studio, St. Louis, Mo.
67. Bradley Studio, New York City.
70. C. M. Hayes, Detroit, Mich.
90. J. E. Giffin, Wheeling, W. Va.
145. J. A. Bill, Cincinnati, Ohio.
157. George Wonfor, Camden, N. J.

The movement to minimize if not to abolish absolutely the use of intoxicants at these conventions, is to be greatly commended; for the excessive use of liquors at Philadelphia and in other cities, has well nigh brought photographers into disrepute. There was altogether too much hilarity at the midsummer revel Friday night and some of the women, wives of delegates and members of the Women's Federation, grew disgusted and left the hall early in the evening. So did some of the men. The rest stayed until the banquet ended at 2 o'clock in the morning.

As a consequence, and largely due to the courageous efforts of one good woman, Mrs. Frank V. Chambers (wife of our respected contemporary), and helped along no doubt by the reaction in feeling of the men themselves, "the morning after" a resolution was unanimously adopted denouncing the use of all intoxicating liquors at conventions, especially on the occasions when women are present.

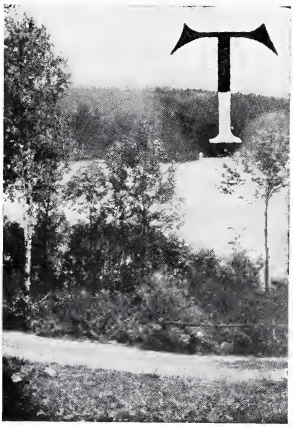
OUR cover illustration this month is an excellent group picture of the officers of the P. A. of A., which was made in Towle's Studio, Washington, D. C., with the Bausch & Lomb famous "Unar" Lens. The frontispiece picture, of President Ben Larrimar, was made by Ryland W. Phillips, of Philadelphia, with the same excellent objective.



A WINDOW PORTRAIT *by the Baker Art Gallery, Columbus, Ohio*

PERSONAL MENTION

BY THE EDITOR.



THE PHOTOGRAPHIC TIMES was represented at the convention by its managing editor, who personally prepared the reports and reviews which appear in this number, and wrote the notes and collected the pictures which illustrate it.

It was a great pleasure to greet old colleagues and meet present day contemporaries at the convention hall. There was John Tennant, for instance, as young looking as ever, and just as enthusiastic in his work and as highminded. Fraprie was there, too, industriously pounding away at the "publishing game." And Frank Chambers and Juan Abel were omnipresent, smiling and successful. But I missed some of the old faces which will never be seen at these conventions again.

It certainly was a congenial "bunch" that made up the thirty-second annual convention of the P. A. of A. There were no wrangles or kicks. Every one was happy and everybody had a good time. The officers were indefatigable in planning for and ensuring the success of the convention, and the Philadelphia hosts certainly surpassed themselves in finding enjoyable entertainment.

It was surely a *touching* moment when President Ben Larrimer, calling to the platform, Miss Katherine Jamieson, who had been unanimously re-elected President of the Women's Federation, and who also received the largest vote as the most popular person present, placed upon her engagement finger the two-hundred-dollar diamond ring which had been offered for this purpose by the Defender Photo Supply Company. Handsome Ben Larrimer is a famous bachelor, you must know, and pretty Miss Jamieson, blushing like a girl, laughingly said in accepting the ring that of course she could not accept it "in a personal way." The crowd at once caught her meaning and laughed and applauded both embarrassed presidents most heartily.

If Miss Jamieson was the most popular woman present at the convention, and of that there can be no doubt, it is equally certain that Frank Noble, of the Eastman Kodak Company was the most popular man. Everyone who knows Frank (and who does not) likes him. He is always the same splendid, big, broad-minded, large-hearted, capable fellow, whom to know is to admire and love.

Besides the beautiful diamond ring which has been referred to there was a splendid gold watch studded with diamonds, which the Philadelphia photog-

raphers presented to retiring President Larrimer. A silver loving cup was given to Ryland Phillips, of Philadelphia, and a certified life membership to former President G. W. Harris, of Washington, D. C.

No compensation was paid to the principal speakers who formally addressed the convention but a much happier way of recognizing their service was accomplished by President Larrimer. He gave them a delightfully appointed banquet and at its conclusion presented each speaker with a handsome loving cup. Five of these cups were given, one each to Messrs. Phillips, Pepper, Kunz, Abbott and Bodine, the instructors in the gum bichromate school. Then to the demonstrators in lighting and posing, Messrs. MacDonald, Bradley, Hoyt and Phillips, Mr. Larrimer gave velvet cases each containing a gold watch fob, also engraved with name of recipients. To Mr. Stieglitz the president then handed a very handsome engraved silver cigarette case.

The ladies had a banquet, too, and then there were more presents and testimonials. Popular Miss Jamieson came in for another gift, this time a beautiful gold bracelet, and each woman present received as a souvenir a pretty green bracelet. Among the various good speeches was one by one of the Gerhard sisters, who was called upon as a representative of their sex in the field of photography. Miss Gerhard proved that a woman can keep a secret by telling how easy it was to get a fifty dollar order from a five dollar patron, and then refusing to divulge her methods. Mrs. Frank N. Leach and Miss Selby represented New York in the felicitations.

In the opinion of an esteemed contemporary the much-advertised address of Mr. Alfred Stieglitz failed to entirely satisfy his hearers. "He failed to get quick enough into the heart of his talk," said this writer, "and as it was a very warm evening a few of the audience quit their seats early. For over an hour, though, Mr. Stieglitz discussed matters photographic as he saw them, and was not sparing in his denunciation of some of the pictures that he saw in the exhibit. Jack Garo's picture, particularly, came under his notice, and he also said rather cutting things about the efforts of professional photographers to employ gum bichromate and similar modern processes as a medium of expression."

Mr. Nelson H. House, of Detroit, Michigan, who was the official photographer of the convention was most competent and courteous.

Mr. L. B. Jones, the able advertising manager of the Eastman Kodak Co. was asked, "What do you expect to accomplish through this campaign to the public which you are now running in the prominent magazines: the 'There is a Photographer in Your Town' campaign?"

Mr. Jones replied: "We realize fully through our other advertising that it takes time to make an impression on the public. We do not expect that this advertising that we are doing in the magazines is going to double the busi-

ness of the professional photographer in a month or even in a year. We do expect, however, that in a short time an effect will begin to be felt. As a matter of fact we have already had information from some phootographers that they had derived benefit from it.

"Of course, to get the full benefit, co-operation must come from the photographer himself. The photographers at this convention are here to study the new apparatus, to study the new printing processes, and the work of their brother photographers as shown on the wall. These things are all of direct and lasting benefit to them in the *production* end of their business. Now it is my personal opinion that they should make more of a study of the sales end of the business, and that their advertising should be of such a nature as to get people to want their pictures taken.

"When photographers generally are working to create a further interest in photography, rather than working to simply draw business from their competitors down the street, it will be a great help towards an increase in the legitimate portrait business. I am very hopeful from what photographers have said to me and written to me that a general interest on their part is being awakened in this matter of educating people up to the idea that they should have their photographs taken more frequently. The Eastman Company is going to keep up the present line of advertising in the magazines and greatly increase it. It also desires to bring about such a condition of affairs as will make it possible for it to be helpful to photographers in their advertising, outside even of this general publicity that is being given in the magazines. It is the desire of the company to assist the photographer in the preparation of copy and cuts, and in every way to put the advertising and the photographic business on the same high plane that it now is technically and artistically."



THE PERGOLA *by W. I. Lincoln Adams*

Mr. Jones also informed the writer that he intended to revive this year the notable Kodak Exhibitions which were so eminently successful a few years ago. As before, they will be shown in the leading art galleries of the principal cities of America.

THE PHILADELPHIA CONVENTION

THE PHILADELPHIA CONVENTION.

The Thirty-second Annual Convention of the P. A. of A., was held in Philadelphia during the week beginning July twenty-second. There were about fifteen hundred photographers in attendance, the weather was perfect, the exhibits were excellent, and the sessions were interesting and instructive.

Lectures and demonstrations were held in a separate hall, and there were meetings and conventions of subsidiary and allied organizations coincident with the sessions of the P. A. of A., all of which are reported in this number of THE PHOTOGRAPHIC TIMES.

Some of the principal papers read and addresses made are printed on other pages of this issue. The leading review of the exhibition of photographs was prepared by Mr. Sadakichi Hartman, who was the official art critic of the convention. We refer the reader to the convention notes and personal items for further information about the convention, as well as to the review of the dealers' exhibits, under the heading, "Among the Dealers."

The first sessions of the convention were held on Tuesday, and, as usual, were of a preliminary nature. Wednesday the visiting photographers spent the day at Atlantic City as the guests of their Philadelphia hosts. Thursday there were practical talks and demonstrations, and Friday the convention was practically brought to a close by the election of officers, and the selection of a city for the next assembly.

The election of officers resulted as follows: President, Charles F. Townsend, of Des Moines, Iowa; first vice-president, Manly Tyree, of Raleigh, N. C.; second vice-president, Will H. Towles, of Washington, D. C.; secretary, Homer F. Harden, of Wichita, Kan., all of whom were unanimously elected amid great enthusiasm. Kansas City was unanimously chosen as the place for holding the next convention.

Friday afternoon the Convention Hall, with all the exhibitions of pictures, apparatus, etc., was thrown open to the public, and it was very largely attended, thus showing the great popular interest there is in photography at the present time.

Friday evening there was a "mid-summer Revel," in an entertainment hall, which did not increase the esteem in which photographers should be held, and Saturday forenoon the closing session of the convention was held and unfinished business was concluded.

* * *

PHOTOGRAPHIC CONGRESS PLANS.

Among the changes in the constitution was the adoption of a change in the territorial division of the country, and this cannot be changed for five years. A line from New Orleans to the Ohio river, thence along the eastern boundary of Indiana and Michigan to Canada, was declared to be the dividing line, and the next five conventions must alternate on either side of that line.

Plans for the development of the photographic congress were also worked out. This congress will consist of two delegates from each state association, and formulate legislation for action by the association. Eventually, the congress will be made the sole legislative body of the association.

* * *

A Snap Shot.—Photographer (surprisprising a burglar)—"Stay just where you are for a moment, your pose and the light effect is simply fine!"

OTHER CONVENTIONS AND MEETINGS

PHOTOGRAPHIC DEALERS' ASSOCIATION OF AMERICA.

The Photographic Dealers of America completed their organization by electing the following officers: Charles H. Huesgen, president; first vice-president, E. H. Goodhart, Atlanta; second vice-president, A. E. Schaeffer, Houston, Tex.; third vice-president, J. H. Smith, Boston; secretary William Hartman, New York; treasurer, H. M. Bennett, New York.

They concluded their meetings with a very successful banquet held at the Bellevue-Stratford Hotel, Thursday evening, July 25th.

Chas. S. Huesgen, the newly elected president, was toastmaster. The speakers were: W. F. Townsend, of the Seneca Camera Company; Harrie White, of the H. S. White Company, Bennington, Vt.; E. Lander Hall, Hall Camera Company, Brooklyn, N. Y.; Mr. Stark, of the Trapp Munch Company; Mr. Steffens, of the Reflex Camera Company, Jersey City, N. J.; Chas. L. Lewis, photographer, of Toledo, Ohio; J. L. R. Holst, of the Williams, Browne and Earle Company, Philadelphia, Pa.; Mr. Gorton, of the Wollensak Optical Company; Jas. H. Smith, of Pinkham and Smith's; E. H. Goodhart, of Atlanta, Ga.; George W. Topliff, of the Ansco Company, Binghamton, N. Y.; and Geo. W. Harris, of Washington, D. C.

Rochester, New York, is the city selected for the next meeting, which will be held in March, 1913.

* * *

WOMEN'S FEDERATION OF PHOTOGRAPHY.

The sessions of the Women's Federation were entirely successful. Much valuable information and instruction was brought out in the discussions and by the papers read.

On Friday morning the officers for the new year were elected as follows:

Katherine Jamieson, president, 126 South Highland avenue, Pittsburgh, Pa.; Lora B. McDaniels, first vice-president, Fifth and Capitol avenues, Springfield, Ill.; Bessie Meiser, second vice-president, Richmond, Ind.; Maybelle D. Goodlander, secretary-treasurer, 409 East Main street, Muncie, Ind.

CHAIRMAN OF SECTIONS.

Section 1—Pearl Grace Loehr, 647 Flatbush avenue, Brooklyn, N. Y.

Section 2—Bayard Wooten, 92 East Front street, Newbern, N. C.

Section 3—Mrs. VanFleet, 220 Grand Boulevard, Detroit, Mich.

Section 4—Mary Miller, Waukegan, Ill.

Section 5—Mate McGill, Albion, Neb.

Section 6—Bessie Thomas, Springfield, S. D.

Section 7—Imogene Cunningham, Seattle, Wash.

* * *

COMMERCIAL PHOTOGRAPHERS ORGANIZE.

The commercial artists have never had an organization, and two Philadelphians, William H. Rau and Ellery S. Caywood, were instrumental in the association being formed. Mr. Caywood was elected secretary. The following officers were elected: President, Ralph W. Johnstone, Pittsburgh; first vice-president, Charles A. Kauffman, Chicago; second vice-president, Frederick Booth, Canada; treasurer, O. W. Cole, Danville, Pa.

Following are the charter members: Wm. H. Rau, Philadelphia; H. Drucker, New York; Chas. F. Baetzman, Indianapolis; Herbert Stead, Richmond, Va.; J. W. Scott, Baltimore; R. D. Van Nieda, Rochester, N. Y.; E. H. Cooper, Harrisburg, Pa.; W. H. Bass, Indianapolis; W. A. Barty, Youngstown, O.; J. C. Covert, Memphis; C. A. Kuhnart, Wilmerding, Pa.; Alfred Turner, Anderson, Ind.; Harper P. Smith, Atlantic City; E. H. Thebis, Wilmington, Del.; C. J. Weber, Canton, O.; Grant Leit, Washington; H. T. Harding, Wichita, Kan.; Fred North, Toronto, Can.; T. A. Crose, Gary, Ind.; Geo. A. Wonfor, Camden, N. J.; Irving Underhill, New York; W. A. Dahlbey, Richmond, Va.; H. G. Andrews, Rochester, Minn.; W. C. Eckman, Indianapolis; W. C. South, Dowingtown, Pa.; L. S. Page, Guthrie, Okla.; W. J. Palmer, Pittsburgh; H. A. Strohmeyer,

Newark, N. J.; R. L. Mallory, Bellefonte, Pa.; R. A. Thomas, New Haven, Conn.; Walter Holladay, Durham, N. C.; H. Schapiro, Baltimore; J. D. Mitchell, Westminster, N. Y.; Rich A. Ade, Philadelphia; F. D. Maisch, Philadelphia; G. Cramer, St. Louis; Henry Burke, Chicago; C. L. May, Pittsburgh; J. Rostin, Philadelphia; F. N. Leach, Binghamton; J. B. Guthrie, Rochester; R. Salsgeber, St. Louis; J. S. Cummings, Rochester, N. Y; C. W. Earle, Chicago; E. A. Laver, New York; Geo. McDougal, Philadelphia; Fred Lockman, Philadelphia; Geo. H. Sharpe, Philadelphia; H. H. McIntire, Chicago; Frank Kilbane, Cedar Rapids, Ia.; F. L. Roy, Peterborough, Can.; Ludwig Schill, Newark, N. J.; H. B. Skinner, Union City, Pa.; Fred Pohle, Buffalo, Wayne Putnam, Cuba, Neb.; W. A. Shuss, Cory, Pa.; J. H. Kilberg, Harrisburg, Pa.; Geo. D. Noyes, Clinton, Ind.; J. W. Dost, Syracuse.

The organization was recognized by the National Association, under the name of Craftsmen Federation of the P. A. of A.

The Committee on Photographic Progress reported on a plan for a print interchange of active members of the Association. This committee is as follows: Strohmeyer, Fred Bass, Coovert, Harden and Booth.

* * *

AMERICAN FEDERATION OF PHOTOGRAPHIC SOCIETIES.

Ninth American Photographic Salon, 1912-1913, to be shown in the principal cities and museums of art, for a season of seven months, opening in November, in the Carnegie Institute, Pittsburgh, Pa.

AN OPEN LETTER FROM GEORGE W. STEVENS, DIRECTOR TOLEDO MUSEUM OF ART.

"I feel that the American Photographic Salon is a most important activity in the field of pictorial photography, inasmuch as it brings annually in many leading cities and museums of art a splendid and interesting exhibit to the attention of thousands, many of whom are attracted to enter into the enjoyment of good art through still another and most alluring gateway.

"Inasmuch as art is not a matter of medium, the man behind the camera, if he possesses the ability, may create much that is good and interesting even as does the man who expresses himself with the brush, the etcher's needle, or in clay. The camera offers one more medium of artistic expression, which should be eagerly hailed and nurtured by all who are interested in the broad art development of our country."

Officers: President, John F. Jones, 723 Ash street, Toledo, O.; vice-president, August Smith, 633 Pinewood avenue, Toledo, O.; treasurer, George W. Beatty, 1440 Nicholas Building, Toledo, O.; historian, Wm. C. Rheinheimer, 1222 Clara avenue, St. Louis, Mo.; secretary C. C. Taylor, 3223 Cambridge avenue, Toledo, O.

* * *

PHOTOGRAPHIC CONVENTION OF THE UNITED KINGDOM.

The chief items of interest from Amsterdam, the focus of this year's Photographic Convention of the United Kingdom, are that the meeting has been well attended—*i.e.*, by Tuesday over 200 members had registered. Next year's convention is to be held at Bangor, North Wales, an excellent center for much easily reached fine scenery. Sir Cecil Herslet, in his presidential address paid a well-deserved tribute to the excellent and ungrudgingly rendered services of Mr. F. A. Bridge as hon. sec. and treasurer. Appropriate references were made to the removal by death during the last year of two past presidents, viz., Mr. H. Snowden Ward and Mr. F. P. Cembrano.

AMONG THE DEALERS

The Eastman Kodak Company was adequately represented by a large staff of their capable salesmen and demonstrators.

Among the representatives in charge of the Eastman display were Frank S. Noble, L. B. Jones, C. F. Ames, Arthur H. Paul, Joe Di Nunzio, F. M. Lovejoy, Chas. Hutchinson, E. M. Dow, H. H. Tozier, W. G. Burley, C. E. Snow, James Haste, J. H. C. Evanoff, R. W. Barbeau, H. F. Arnold, H. A. Collings, Frank Emminger, C. H. Ruffner, C. L. Swingley, W. H. Allen, O. J. Smith, J. J. Montgomery, Frank L. Andrews, N. P. Richardson, C. F. Becker, H. F. Hoefle, W. A. Nye, Tilden Chappell, N. E. Niles, E. H. Newell, S. B. Hord, J. C. Neeley, H. F. Martin, E. R. Nichols, G. E. S. Williams, H. B. Grove, C. F. Neidig, J. E. Hage, C. J. Van Allen, C. S. Rabineau, W. T. Houston, W. A. Reinhart, H. S. Watson, Elias Chait, J. P. Schaposchnikoff, W. G. Bent and Harry M. Fell.

Those who represented the Ansco Company were the general manager, George W. Topliff, who was ably assisted by F. W. Stephen, F. A. Leache, W. B. Mussen, C. A. Anthony, J. A. Doherty, J. D. Rice, J. F. B. Hearn, W. Rockwood, C. Bolwell, T. C. Bell, C. H. Dotta, W. Etchenson, A. J. Rosemeyer, A. N. McDavitt, Paul True, Sid Whitman and J. Peritz.

The Seneca Manufacturing Company showed a new camera similar to the Brownie, which they have named the "Scout."

Mr. Fred Hammer, Jr., of the Hammer Dry Plate Company, was unfortunately detained at home by a rather serious illness.

We were sorry to know that our old friend, Lamoutte, Secretary of the Ansco Company, was absent on account of illness. He very wisely decided upon a sea voyage and a rest on the other side of the Atlantic.

The Eastman Company showed a full line of professional apparatus and requisites. They have now in press a very complete catalogue for professionals which all who do professional work should send for.

One of the convention's "Sensations" which was well worth the study and a trial was the Matt-Albumen paper entitled, Zelta.

A new portrait lens of "Goerz Quality" was shown by the C. P. Goerz American Optical Company, entitled the "Hypar."

An excellent large portrait of President Ben Larrimer, and a splendid group picture of all the officers was on exhibition, made by the Bausch & Lomb Optical Company's famous "Unar" lens.

A number of our leading portrait photographers exhibited their work on Cyko paper, and the result at the Ansco Co.'s headquarters was extremely impressive, particularly as we were assured it was merely the average, everyday work turned out by their studios.

Mr. Walter Zimmermann writes as follows about Photo-Finish World Blotters: "In working out my invention for the slow development of gum-bichromate prints by absorption into blotting paper, I found that the process was made possible or practicable by the use of your 'Photo-Finish World Blotter'—all other blotting paper that I bought would go to pieces in the soaking.

"As my process is probably the severest test of all, for such paper, I do not hesitate to recommend it heartily for all photographic purposes, as being, in my belief, the best possible blotting paper."

The Wollensak Optical Company handed out a useful little pamphlet, entitled, "What type of lens is best for my purpose?" which can be obtained by addressing the home office at Rochester, New York.

"Agfa" Kapselblitz is a new and convenient means of securing flashlight exposures. No lamp required. Safety in packing, and exactness in quantity of light.

Price, $1.00 per box of 10 kapsels. The "Agfa" Professional Flashlamp (patented), is fitted with a 12-inch tray for burning large quantities of flashpowder. It can be screwed on to any tripod. Extension tubing is supplied to raise lamp, and pneumatic release for firing two lamps simultaneously, or one lamp and camera shutter.

All is packed conveniently in carrying case of beautiful design. Ignition by

means of pyroporous metal. Price, $15.00. Berlin Aniline Works, 213-215 Water street, New York.

There were splendid portrait negatives, shown by transmitted light, made on Seed Plates.

The Cramer exhibit nearby fully maintained the high standard of excellence of these well known plates.

Artura paper was most impressively shown by some stunning prints exhibited on both sides the main stairway.

The veteran stock dealer, James H. Smith, of Chicago was in attendance and showed an excellent studio artificial light.

The Hammer Plate, as usual, was adequately represented by some superb negatives and by prints made from them.

The new Home Portrait Outfit of the Eastman Company made a genuine hit. It is very complete and right up-to-date.

The Century portrait Outfits numbers 7 and 8 showed a new focusing device, with a convenient magazine holder and attachment which were also new, and very practical

* * *

The Defender Photo Supply Co., is erecting an additional building on Driving Park avenue, in Rochester, which will increase their floor space by 25,000 square feet. They will install a new hundred-ton ice machine as an auxiliary to the present refrigeration plant, and the power plant will be doubled. The building will be provided with every modern convenience for the manufacture of photographic material and supplies, as well as for the convenience and comfort of its employees, both men and women.

* * *

The C. P. Goerz American Optical Company wishes to warn admirers of Goerz Lenses not to purchase these well-known anastigmats excepting from reputable photo-supply dealers or from persons of whose honesty there can be no doubt. A Syntor lens of 4¾ inches focus (No. 228,430), which was recently sent to the factory by its dissatisfied owner, proved to be a counterfeit, the original elements having been removed from the barrel and comparatively worthless ones substituted. Other similar cases are on record.

We call our reader's attention to the advertisement of Herbert & Huesgen Co., Sole Trade Agents for Artatone. Artatone is a new printing-out paper which has the distinction of being quite different from anything now on the market. It is a hand-made sensitive Japanese tissue which requires only hypo and water to produce the richest sepia and brown tones imaginable. We have before us a print made on this paper and when we observe the wonderful tone effects obtained in so simple a manner, we are sure that the paper will prove one of the most popular ever introduced to the photographic public. We predict that many amateurs who have been deterred heretofore from making their own prints because they lacked technical experience, will take to printing their negatives on Artatone with as much enthusiasm as they "Snapshot" now. The more ambitious worker, who strives for the best medium to express his work, will welcome the new paper because of the crisp, sparkling highlights, the deep rich tones in the shadows, that can be obtained with so little trouble.

On account of its extreme thinness, some very interesting two- and three-color effects can be produced with Artatone by inserting vari-colored pieces of paper between the print and the mount. Moonlight and sunlight effects are made particularly effective by inserting a piece of green or blue, or red paper underneath the print.

We can confidently recommend this paper to our readers, especially as we are assured that the prints are guaranteed to be absolutely permanent.

Further information can be had by addressing Herbert & Huesgen Co., No. 311 Madison avenue, New York City, or from any dealer in photographic supplies. It will pay you to learn some more about "the paper of wonderful tone effects" as it is called by its agents.

* * *

Brilliant Idea.—Artist—"I'd like to devote my last picture to a charitable purpose."

Critic—"Why not give it to an institution for the blind?"—*New Orleans Times-Democrat.*

HIAWATHA'S PHOTOGRAPHING

By Lewis Carroll (as reprinted and presented by the Wollensak Optical Company.)

From his shoulder Hiawatha
Took the camera of rosewood
Made of sliding, folding rosewood;
Neatly put it all together.
In its case it lay compactly,
Folded into nearly nothing;
But he opened out the hinges,
Pushed and pulled on joints and hinges
Till it looked all squares and oblongs,
Like a complicated figure
In the Second Book of Euclid.

This he perched upon a tripod
Crouched beneath its dusky cover—
Stretched his hand, enforcing silence
Said "Be motionless, I beg you!"
Mystic, awful was the process.

All the family in order
Sat before him for their pictures;
Each in turn, as he was taken,
Volunteered his own suggestion,
His ingenious suggestions.

First the Governor, the Father;
He suggested velvet curtains
Looped about a massy pillar;
And the corner of a table,
Of a rosewood dining table.
He would hold a scroll of something,
Hold it firmly in his left hand;
He would keep his right-hand buried
(Like Napoleon) in his waistcoat;
He would contemplate the distance
With a look of pensive meaning,
As of ducks that die in tempests.

Grand, heroic was the notion:
Yet the picture failed entirely;
Failed, because he moved a little,
Moved, because he couldn't help it.

Next, his better half took courage;
She would have her picture taken.
She came dressed beyond description,
Dressed in jewels and in satin
Far too gorgeous for an empress.
Gracefully she sat down sideways,
With a simper scarcely human.
Holding in her hand a bouquet
Rather larger than a cabbage.
All the while that she was sitting,
Still the lady chattered, chattered,
Like a monkey in the forest.
"Am I sitting still?" she asked him.
"Is my face enough in profile?
Shall I hold the bouquet higher?
Will it come into the picture?"
And the picture failed completely.

Next the Son, the Stunning-Cantab.
He suggested curves of beauty,
Curves pervading all his figure,
Which the eye might follow onward
Till they centered in the breast-pin,
Centered in the golden breast-pin.
He had learnt it all from Ruskin
(Author of 'The Stones of Venice,'
'Seven Lamps of Architecture,' 'Modern
Painters,' and some others;)
And perhaps he had not fully
Understood his author's meaning;
But, whatever was the reason,
All was fruitless, as the picture
Ended in an utter failure.

Next to him the eldest daughter:
She suggested very little,
Only asked if he would take her
With her look of 'passive beauty,'

Her idea of passive beauty
Was a squinting of the left-eye,
Was a drooping of the right-eye,
Was a smile that went up sideways
To the corner of the nostrils.

Hiawatha, when she asked him,
Took no notice of the question,
Looked as if he hadn't heard it;
But, when pointedly appealed to;
Smiled in his peculiar manner,
Coughed and said it 'didn't matter.'
Bit his lip and changed the subject.

Nor in this was he mistaken,
As the picture failed completely
So in turn the other sisters.



A COUNTRY ROAD

Last the youngest son was taken:
Very rough and thick his hair was,
Very rough and red his face was,
Very dusty was his jacket,
Very fidgety his manner.
And his overbearing sisters
Called him names he disapproved of;
Called him Johnny, 'Daddy's Darling,'
Called him Jacky, 'Scrubby School boy.'
And, so awful was the picture,
In comparison the others
Seemed to his bewildered fancy,
To have partially succeeded.

Finally my Hiawatha
Tumbled all the tribe together,
'Grouped' is not the right expression,
And, as happy chance would have it,
Did at last obtain a picture
Where the faces all succeeded,
Each came out a perfect likeness.

Then they joined and all abused it,
Unrestrainedly abused it,
As 'the worst and ugliest picture
They could possibly have dreamed of,
Giving one such strange expressions,
Sullen, stupid, pert expressions.
Really any one would take us
(Any one that did not know us)
For the most unpleasant people!
(Hiawatha seemed to think so,
Seemed to think it not unlikely.)
All together rang their voices,
Angry, loud, discordant voices,
As of dogs that howl in concert,
As of cats that wail in chorus.

But my Hiawatha's patience,
His politeness and his patience,
Unaccountably had vanished,
And he left that happy party.
Neither did he leave them slowly,
With the calm deliberation
The intense deliberation
Of a photographic artist;
But he left them in a hurry,
Left them in a mighty hurry,
Stating that he would not stand it,
Stating in emphatic language
What he'd be before he'd stand it.

Hurriedly he packed his boxes:
Hurriedly the porter trundled
On a barrow all his boxes;
Hurriedly he took his ticket;
Hurriedly the train received him;
Thus departed Hiawatha.

NOTES

The Outlook recently published three rather remarkable examples of Aerial Photography through the courtesy of the Carl Zeiss lens-makers. One shows the city of Jena, Saxony, "as the airman sees it" from a height of 984 feet. Other pictures were of the Castle of Rudelsburg, in Saxony, and the Balloon Grounds, in Meiningen, Saxony.

* * *

Portrait, the progressive little magazine devoted to "Art in Portraiture," as well as "Profit in Photography," published by the Ansco Company each month, grows more useful and attractive with each number. The August number contains an excellent portrait of J. V. Schriever, of Scranton, Pa., on its cover, and continues the articles by Felix Raymer on "Something Different in Home Portraiture," with excellent illustrations.

* * *

THE AGFA BOOK OF PHOTOGRAPHIC FORMULAE,

By George L. Barrows, contains clear and definite explanation of the various "Agfa" developing agents, thereby showing the most advantageous developer to use in various cases. It explains that the successful working of any formula is its careful preparation and more especially its adaptability to the make of plate, film or paper used. The editor has secured the formulæ first hand from the various makers of plates, films and papers, and compiled them in a convenient form.

PHOTOGRAPHS WANTED

$130 in cash prizes offered for photographs of farm scenes, harvesting scenes, farm animals, children at play, fishing, boating, and along the lakes and rivers, etc. All available photos not awarded prizes will be purchased at $1.00 each. All other photos will be returned to sender promptly when contest closes. For full details and names of winners of last year's contest drop a postal to E. A. STROUT FARM AGENCY, Largest Farm Agency in the World, 47 WEST 34TH STREET, NEW YORK.

The Photographic Times

With Which is Combined

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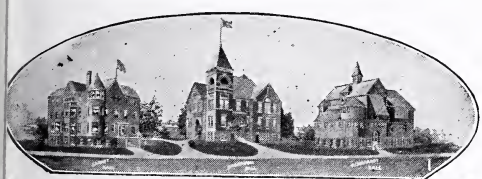
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Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

HOW TO COLOR PRINTS.

It's easy to do a thing when you know how, but even the person who knows how to do a certain thing often finds that someone else has a better way that makes the work *more* simple. This applies to the coloring or tinting of prints, there being many ways, all of them good, but one of which is very much easier and more satisfactory than the others.

For the colors, we will suggest Velox Water Color Stamps as the most satisfactory, convenient and inexpensive of colors. A book of these stamps is composed of twelve leaves of color, each leaf being perforated so that the small squares or stamps can be torn off and placed in water, when the colors will dissolve, the strength of the tint, of course, depending upon the amount of water in which the stamp is dissolved. Good Sable or Camel's Hair brushes should be used, two half-inch flat and one or two No. 4 round brushes being sufficient.

Four or five small butter dishes will be found excellent to hold the colors and these with a piece of clear glass and a couple of white blotters will complete the outfit.

Select the colors to be used in tinting the particular print and dissolve one stamp of each color in a small quantity of water in the small dishes. For the average landscape, Light Yellow, Deep Yellow, Warm Brown, Brilliant Red, Foliage Green and Light Blue will be found very suitable.

Select a print on Velvet Velox paper (These colors work well on any matte surface gelatine paper) and of some simple bit of landscape. Soak the print in water until it is perfectly limp and lay on the glass for convenience in handling. Begin by coloring the sky, using the flat brush and the light blue color. Work from the top down towards the line of the horizon with broad strokes from side to side. It is bette to go over the same part of the prin several times than to try to apply th color too strong at first. Do not ru the blue tint too close to the line of th horizon as a tint of yellow or dilute orange is very effective at this point It should be applied with a flat brush blending the yellow or orange into th blue. If a sunset effect is wanted, dash of brilliant red or strong orang right at the horizon line gives the de sired result.

If there is a foreground of water i your picture, the effect of reflections i the water may be secured by usin these same colors, brushing them ver lightly over the water.

The effect of distance is best secure by tinting the distant hills with ligh blue. The color should be used spar ingly, however, as the effect is spoile by using too much color. For th foliage, use a light wash of Foliag Green, touching up the shadows wit strong Deep Green and Warm Brow and for the highlights, use Light Yellow or Brilliant Red, touching up the part that will take these colors most effect ively.

It is advisable, during the process o coloring a print, to go over it occasion ally with a wet sponge to keep the print damp and aid in blending the colors. Always blot off the surplus water before applying more color. With these simple instructions, no one need make a failure of coloring their prints and after a few trials, the many beautiful effects that can be secured will add much to the attractiveness of the vacation prints.

Book of Velox Water Color Stamps, twelve colors in a book - - $.25

Preserve your vacation negatives in an Eastman Film Negative Album.

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A VACATION ALBUM.

In making up an album of the vaca-
on pictures, one of the most important
ings to consider, aside from the neces-
y of having clean, neatly trimmed
d well mounted prints, is variety.
nd there is really no excuse for not
ving variety, since printing methods
ve been made so simple.

If you are at all interested in having
attractive album of vacation pictures,
t me tell you how simply you can
ake your album the envy of all your
ends. First of all, you must have
rmony. It would injure the general
fect to mount brown prints on black
aves or black and white prints on
own leaves.

Select an album with grey or black,
aves, if most of your prints are to be
ack and white, and we will presume
ey will be, and to lend the variety—
at is to make this album out of the
dinary, insert a leaf here and there
r the other prints.

You should have a few sepia prints;
few green prints and a few subjects in
lor. The method of coloring the
int is given in the article following.
he sepia prints are very simple to
ake, the only thing necessary being
od black and white prints and a five
nt tube of Velox Re-Developer for
anging the black prints to brown.
eautiful carbon green prints are made
Kodak Velvet Green paper, the ex-
sures being made by daylight and the
ints developed and fixed in the reg-
ar Velox chemicals.

A rich cream cover paper of about
e same thickness as the leaves of your
bum can be had at most any of the
hotographic supply dealers. You will
nd the deep cream paper most suita-
le for the mounting of sepia, green or
lored prints, and when the paper has
en cut the exact size of your album
af, you can cut out a leaf here and
ere, leaving a short stub, and attach
the cream leaf to this stub with glue, being careful to leave the album under pressure until the glue has set.

When the sepia, green and colored prints have been neatly mounted on these leaves, a very fine brown or green border line may be drawn with a very sharp colored pencil, about three-eighths of an inch from the edge of the print. You will find the result very harmonious and your album much more attractive for the variety these pages will lend.

Trim your prints accurately and neatly with a

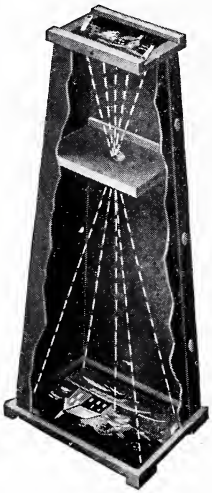
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No. 2, Steel Blade, capacity 7 x 7 inches, . .	*.60*
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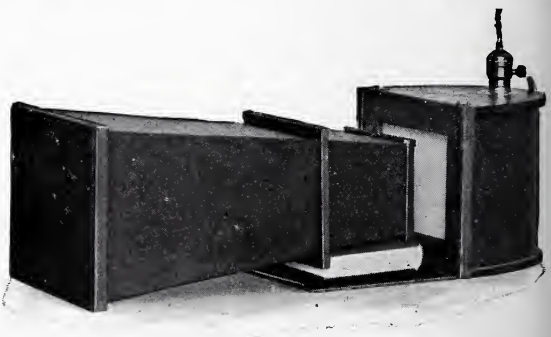
THE PRICE

No. 2 Brownie Enlarging Camera, for 5 x 7 Enlargements from 2¼ x 3¼ negatives,	$2.00
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No. 4, ditto, for 8 x 10 Enlargements from 4 x 5 negatives (will also take 3¼ x 5½ negatives),	4.00

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By the aid of the simple

Brownie Enlarging Camera Illuminator



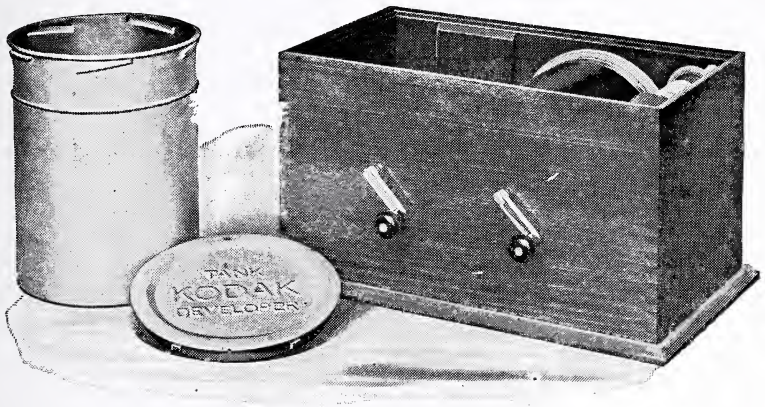
Brownie Enlarging Camera in use with Illuminator.

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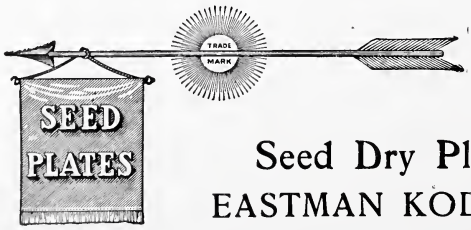
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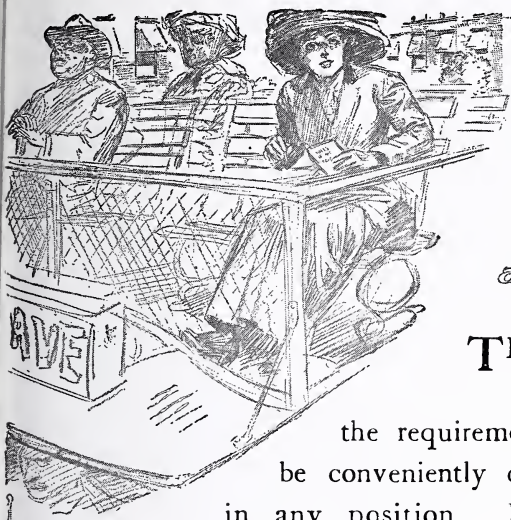


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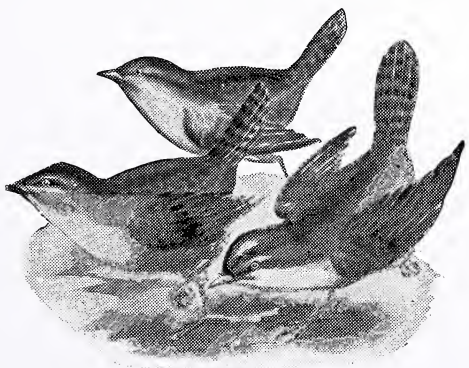


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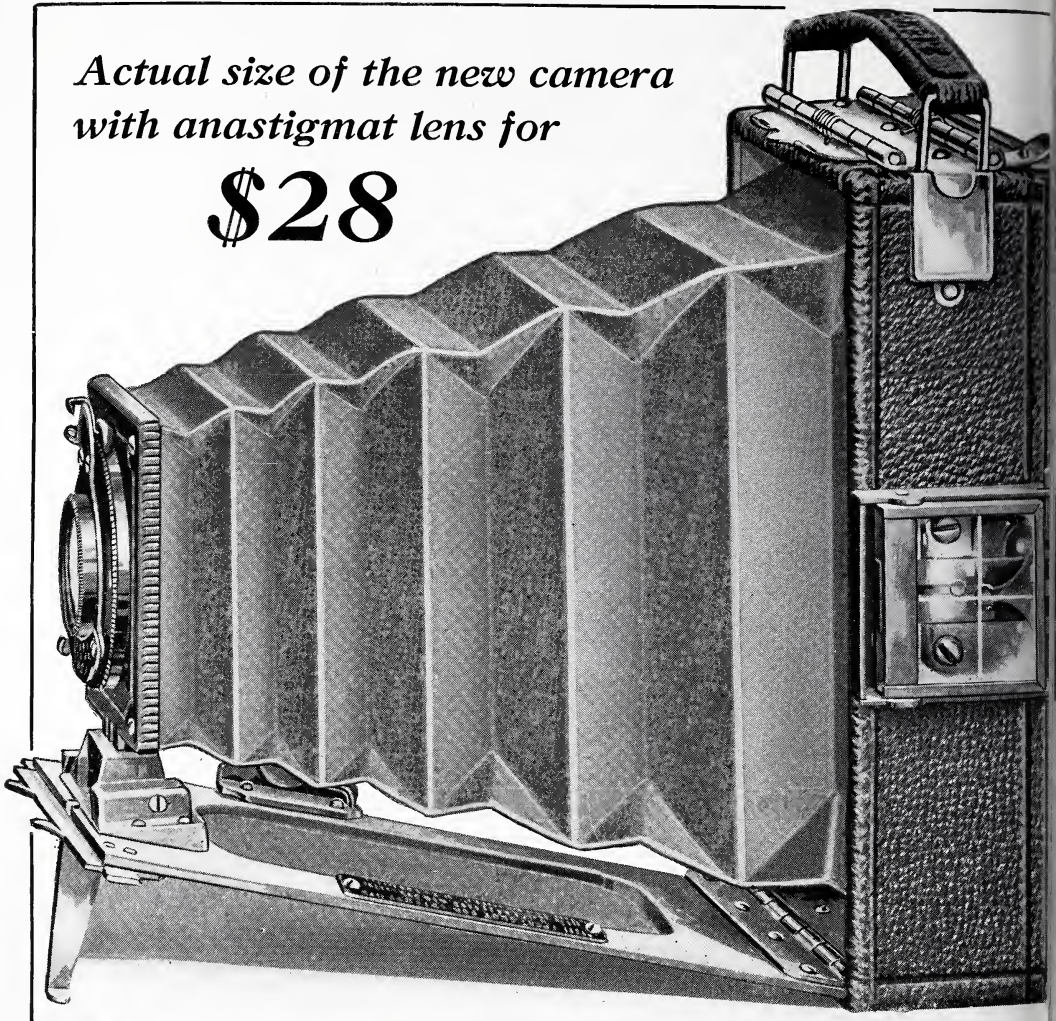
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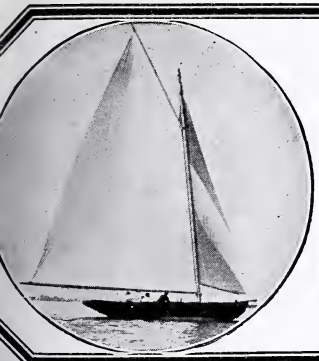
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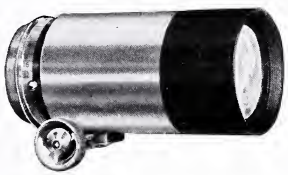
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Preface
Introduction
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The Point of Interest
Line Combinations
A Method of Spotting
The Placing of Figures
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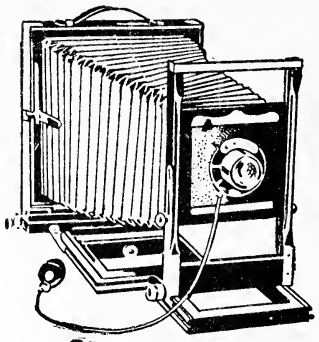
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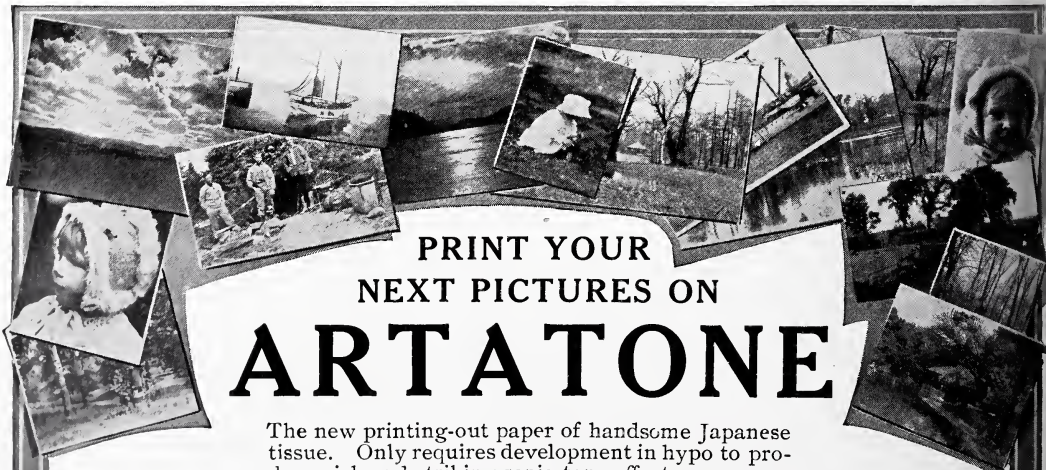
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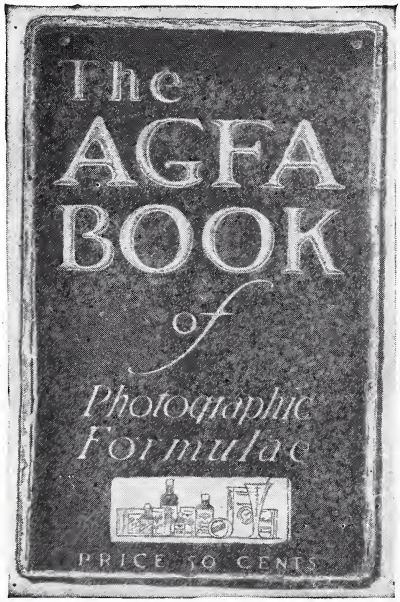
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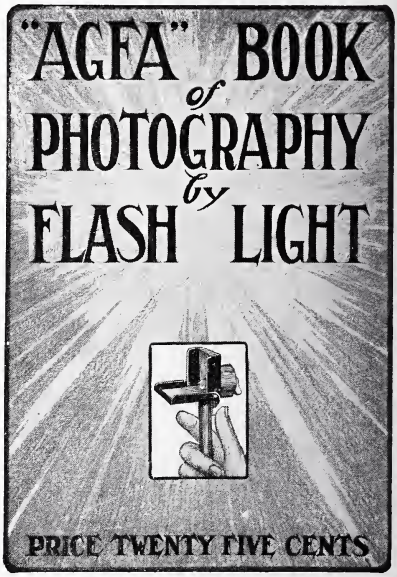
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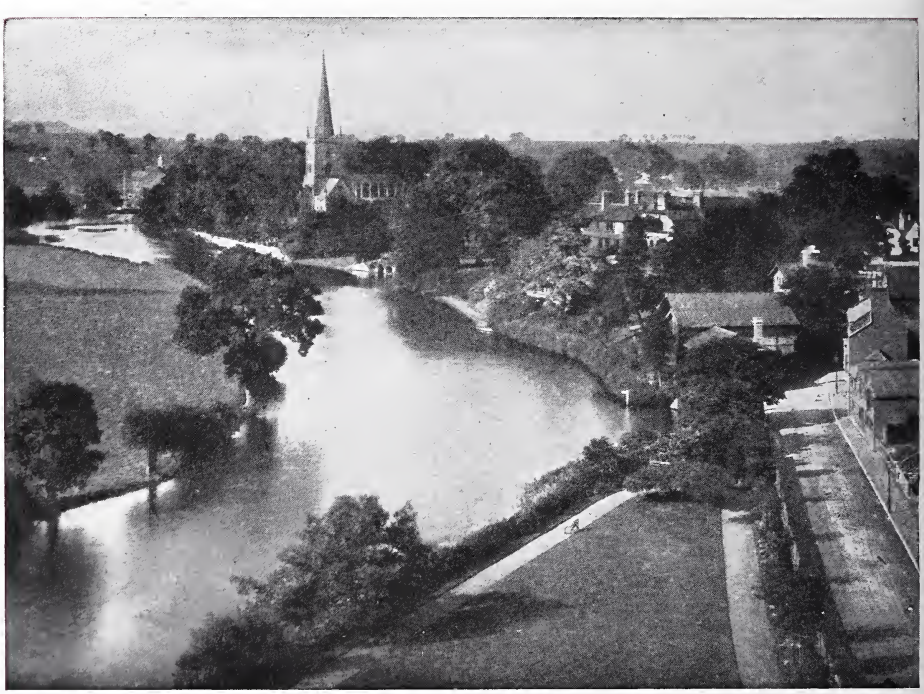
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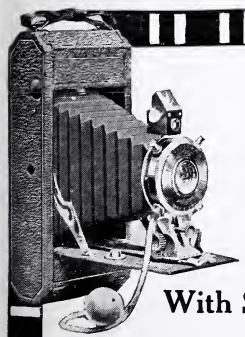
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VOLUME XLIV OCTOBER, 1912 NUMBER 10

CAMPING WITH A KODAK

C. H. CLAUDY.

With Illustrations by the Author.



IN PHOTOGRAPHY'S early days, when apparatus was so heavy and bulky as to require a horse and wagon to transport it—when the wet plate was the only plate and a picture had to be made while the plate was wet whether it suited just then or not—pictures of the great outdoors were few and far between. The world looks and marvels at the wonderful work of Brady in carrying his outfit from battlefield to battlefield. It is only necessary to compare these pictures, say, with those moving pictures made on the Italian-Turkish battlefields to realize the enormous progress made in the art in fifty years.

Yet even to-day, when the pocket kodak slips out of sight, mind and bother in the coat pocket—when rolls of films for a gross of pictures weigh less and take up less room than the material for one wet plate negative—when developing apparatus slips in a corner of a suit case and a whole printing outfit can go in a stout Manila envelope, we look still with unusual interest on the picture made far from the haunts of men and the convenience of a city, even when we know it has been made possible by the simplification of photographic processes.

Many an amateur who goes fearlessly and confidently about the business of making vacation photographs, of traveling on trains and boats with a whole outfit grows timid when it comes to a question of camping and wants to leave behind him all save the kodak itself—this, not that he fears the results so much as he fears to depart from photographic convention.

But he fears needlessly. Take it on the authority of experience from me who have traveled more miles in a canoe and on the trail than I can count, photography in the field—yea, even with tank and developing outfit, with printing frame and velox, is no whit more difficult than the same work done at home.



IN CAMP *C. H. Claudy*

But this, only when you can disabuse your mind of those photographic conventions which long practice have instilled into you. You must be able to forget the necessity for clean water, for cool water, for warm water. You must learn to work without ice. You must be content to use the makeshift for the darkroom and the better-than-nothing for the work table. You must learn to half wash and half dry things without worrying and must have a greater faith in your tools and your material than you need within the sanctuary of your own workroom. Given this lack of the usual conventional idea, this greater faith in what you use and that with which you use it, and even a beginner can do things in the field which Brady couldn't pretend to do with all his experience—for Brady worked fifty years ago.

It would be idle in a story of this kind to attempt to tell you the simple art of making photographs—it is supposed you know its essentials before you dare think of trying it from a canoe, or while climbing mountains or rocking a-muleback down some tortuous canyon trail. All that can be done is to give certain hints—lay down certain maxims, which have the wisdom of actual trial and proof in the field.

In the first place then—the most important of all things in connection with photography in canoe or in camp, is to keep sensitive material dry. There is no way to get around this—get your films damp and you had better throw them away than go through the bitter disappointment of water-marked films. I recall with a sickening feeling of disgust to this day two sets of films—neither



A CAMP JOKE *C. H. Claudy*

of which could be duplicated—which were ruined by dampness, before I learned of the absolute necessity of chemical dryness. One set was made on a roughing-it trip at sea—the other on a pathfinding automobile expedition into uncharted roads, and the first seven pictures on an average on each roll had better—oh, much better—never been made.

Nor is this keeping dry at all difficult. You can, if you will ask for it, and pay a very small additional price, buy N. C. film in tin boxes, a roll to a box. The boxes are circular, have a tin top, which is fastened down with a piece of adhesive plaster. It is to all intents and purposes not only dampproof but waterproof. On a spill overboard due to a flick in the current and a day dream in which I indulged, I thoroughly doused my entire outfit once,—but my films were as dry when I unpacked them as the day they were made.

Developing in camp is *always* to be advised, when time and situation permit. The reason is twofold—first, no matter how dry the film may be when put in the camera, and how dry it is kept after it comes out of the camera, one nasty rainy day in the canoe will thoroughly permeate the whole with humidity—and if the film is not developed soon after, water marks *may* show. The other reason is to check the exposure—to find out if you are getting what you want, and if not, whether you are under- or over-exposing. This in face of the fact that a tank weighs but little and takes up but a tiny bit of room in camp or canoe, is not hard to do.

In practice with the tank in the field, I use the powders prepared for it by the makers. A thermometer is a necessity, because you have but little means



FIXING BATH IN THE WASH BASIN *C. H. CLAUDY*

of cooling water and must adjust the time of development according to the temperature, decreasing the time as the temperature increases and *vice versa.* But because you have no ice is no reason why you can't cool water to some extent. Thus, a tank full of water taken from a shady pool may be seventy-five degrees and you would reduce it to seventy. Wrap a towel about the tank and draw it tight—keep the towel wet at intervals—as the water exaporates from the towel it will carry some of the heat from the water in the tank with it—and in an hour or so should cause a decided drop in temperature. It is but an adaptation of the principle on which canteens are made. These flat, large surfaced cans are always covered with heavy cloth, tightly stretched. Keep a canteen dipped in the water at intervals, and as it dries off, it will keep its contents cool.

Fixing baths should always be used fresh and strong. Better take a few rolls less of film and a bit more prepared fixing bath powders and make up fresh than try to hold over an old bath. The reasons here are likewise two fold. A freshly made bath is cold, because of that little understood chemical action of dissolving hypo in water which cools the solution. We don't know just what the chemical action is, since we start with water and hypo and finish with hypo and water, but action of some sort there is. A cold fixing bath for a soft film is always a necessity and doubly so here where you must take the developing water almost at the temperature at which you find it. The other reason is this—a fresh bath fixes quickly and the alum in it acts quickly. A



FIXING IN A PIE-PLATE *C. H. Claudy*

staler bath takes more time. The more quickly you can fix soft films—the more quickly you can give them a five-minute or less washing and hang up to dry in a breeze, the more likely you are to keep the films you have made with so much pride and the less likely to see them wandering off in small streams of black silver and melted gelatine carrying with them many melted hopes and much good bad language.

It isn't necessary to make up much bath at a time—that is one of the conventions you must get away from. Six ounces is ample for a roll of film—for two rolls even, fixation to be accomplished as hand development of a roll of film is accomplished—by sea-sawing the roll through the solution. Nor is it necessary to "fix ten minutes after the white has disappeared" according to the text book. Fix until clear—then stop. Nor must you "wash an hour in running water." Wash five minutes in the river or brook—then stop and dry. Ay, I know these films are neither properly fixed or properly washed. But the less water they have to endure where the water is warm, the less likely they are to disappear in melting tears—and there is nothing to stop your refixing and rewashing them when you get home—or even the next day if you want to. A film which has once gotten thoroughly dry is much, much tougher than it was at first and will then stand a longer fixing and washing with little likelihood of damage from warm water. This, too, is a convention to ignore—this necessity for a long washing immediately following fixation. Of course, if the water is cool—according to the thermometer and not your memory of your early morning dip while the mists are chilling you—none of these aids to hasty work need be considered.

I have developed and fixed and washed and printed in camp. I own I do not see the necessity of doing the printing so far away from conveniences, but it can be done if you simply cannot wait, without much effort. Blue print, of course, recommends itself for camp work, since it needs no chemicals save the river water. But velox takes but a few small tablets or tubes of developer and frames can be loaded in a tent darkened with a blanket thrown over it and exposures made by daylight, if you so desire. If you do this, see that your package of fresh paper is well covered between exposures and make your exposure by drawing aside the curtaining blanket and exposing the paper and negative a foot beneath the tent where the sunlight falls on it—at that you will find a second or two ample exposure for most negatives.

Warm solutions and long washing have no terrors for velox, if there is enough alum in the fixing bath, so far as melting is concerned, but you will find that the fresh hypo is an essential if you are not to have a crop of brown stains from warm developer. As stated before, I personally prefer to let the camera, film and tank comprise my outfit. No, I take no trays when I go thus equipped in a canoe for two weeks down some attractive stream—I use the wash basin for the hypo and the water bucket in the river to wash the films in—a pin through the film to a branch is my drying rack and a sheath knife cuts the films apart. And I have learned to *watch* my drying films, too—nor leave them to the tender mercies of inquisitive flies, mosquitoes, caterpillars, crawling helgamites, or other denizens of the air and grass who seem to find in the soft gelatine a feast worth the eating.



PACKING UP *C. H. Claudy*

Accidents? Oh yes, we all have them. I have kicked over developing films and spoiled them and my temper—I have upset in the canoe and thought I had spoiled my kodak, but saved it with vigorously drying with the tea towel and a good dose of kerosene for the shutter. I have dropped myself and my kodak down a mountain side and been the more damaged of the two and I have fogged films in camp by forgetting the difference in the daylight from a bright sky overhead and that in a room, in transferring developed films to the

fixing bath without a sufficient rinsing. But then, I have had accidents at home, too, and I cannot see, once given this mental attitude of forgetfulness of the conventional and willingness to do without and to makeshift, why camping with the kodak and the developing outfit is any harder *per se,* than using it at home.

Finally, don't forget a piece of string and some sort of tripod, even if it's only a ledge about a packing box. Making pictures of the whole party is lots of fun, especially if the "whole party" is only two in number—and a string to the shutter set for the proper exposure—the other end tied to a stone or a tree to be kicked artistically by one of the two, does the trick without trouble and will produce results with which you can amaze those who know there were but two in the party.

To recapitulate—keep your films dry. Develop them according to the temperature. Fix quickly in fresh solution and not too long. Wash quickly if the water or weather is warm. Dry under observation to avoid the insect pests. Re-fix and re-wash at leisure. Do your velox work under a shaded tent—do blue print work for convenience while in camp. Oil your shutter if it and the kodak fall overboard, and try to keep the camera as dry as you can in between times. Carry a string and a tripod or substitute for self-picturing, and go, go soon, and long, take plenty of film and your tank and chemicals, and when you come back, confess that what seemed difficult was found easy—due entirely to the wonders of modern photography and the fool-and-condition-proofness of the modern apparatus for picture taking and for negative making.



EVENING

THE CAMERA'S AID TO ART TEACHERS AND DESIGNERS

BY FLORA LEWIS MARBLE.



THE man with the brush has been slow to see the artistic possibilities of the camera, and who can wonder,—he has been prejudiced, on the one hand by the "professional photographer" who makes cut and dried pictures of people looking as if they were about to have their teeth drawn, and, on the other hand by the well meaning amateur with his ever-present Kodak and equally inartistic results. These two classes contained the majority of the camera folk until quite recently, but the few have always believed in the artistic possibility of the camera and taken advantage of every improvement in its mechanism that would help them to express truth or beauty with a sensitive plate. These few have at last come to the front. They have convinced even the artist of the brush that there can be art in photography, and they are fast showing him that their camera can be of vast use to him in his profession.

To the teacher of art in our public schools who is trying to convey the knowledge of form, light and shade, values and perspective to classes of young people by means of object drawing, the camera is a great blessing.

The average child can draw, with little trouble, a form bending to the right or left, but let a leaf turn toward him and he is lost. He has no more idea of perspective than an ancient Egyptian. The problem of instruction is simplified at once if the child can be shown a clear photograph of a leaf bent toward him. Here the subject is reduced to the flat before his eyes, with the drawing sharply indicated by Nature's use of light and shade. This method does not teach children to copy photographs, it shows them how to look at an object that they are about to draw as if its lines, and light and shade, were flat before them—as if they saw it through a pane of glass and the object was not really beyond, but, just as they saw it, only flat against the glass. In other words, they learn to reduce the material before them to a picture. The many uses of such carefully taken photographs in teaching children will at once be seen.

Photography can do more than this for the art worker. To-day the world demands that textiles, tapestries, wallpapers, potteries and even the door knobs and latches of a house shall be designed with artistic care. An army of arts and crafts workers has sprung up. The result is that now the ideal home is simplified. Superfluous ornament is done away with, everything about is useful, and at the same time beautiful and in harmony with its surroundings. One family in my mind, whose summer place is called "Woodbine" because of the

trailing vines that clamber over the gray walls, has carried this idea throughout the entire decorative plan. Woodbine can be traced in delicate sprays on the wallpapers. Heavier leaves of the same vine are found in the rugs, shading through all the colors that the leaf takes in a year, pale green, copper and russet. Woodbine designs adorn the damask and china for the table, indeed, wherever there is a design it is woodbine. To carry out a scheme like that many specially designed furnishings must be had, and they must be designed by an artist. Besides being an artist the person must have a thorough knowledge of woodbine. I recall a wallpaper design of some twenty-five years ago, hung in a room I knew when a child. Its heavy sprays of woodbine colored dark green blossomed with bright pink roses. Such a thing would not sell to-day even on cheap paper, surely not to the lady of "Woodbine." To-day an artist must be truthful, and the designer must be prompt to execute his orders, for, if the spirit of the times is critical, it brooks no delay.

Here, then, an intelligent use of the camera will often save the day. If the design is to be executed in silver, or silk, in wood-carving, or on rugs, it will be really successful only if it is true to Nature's patterns. If it is mid-winter the forms of wild flowers cannot be studied afield, yet an order may demand the daisy or some little wild weed like herb-robert, how fortunate then to be able to turn to a good photograph of these plants which will reveal all the delicate lines, light and shade, texture of petal and perfect botanical truth of



THE WHITE DAISY — *Flora Lewis Marble*

the growing plant, and, if the picture was made with an isochromatic plate, it will suggest the color value of the blossoms. Notice the difference in value of color in the two daisy photographs, and the individuality showing in the flowers. The white daisy has thin, crisp, petals. The bracts of the involucre are small and equal. Its stem is smooth. On the other hand the black-eyed Susan is very rough and hairy throughout. The stem broadens near the flower head. The bracts of the involucre are leaf-like. Could even the flower itself be of as much aid to the designer as photographs such as these? The flower changes its position, it opens and closes its petals. Dexterity is required even to catch its natural position with the camera, it changes so quickly when it is picked. How much more difficult to make an accurate drawing for the designer.

So let the artist and designer use the camera for a notebook, and express the truth and beauty of Nature in every design. He will find wild vines like the balsam apple that are new and useful. The little spring flowers like herb-robert are needed for small patterns. Mock orange and apple blossoms lend themselves to silk patterns and wallpapers. With the beauties that the camera will keep for him the future of the designer is full of promise.



HERB ROBERT *Flora Lewis Marble*

NOTES AND NEWS FROM LONDON

F. C. LAMBERT

Slipping tripod. I have two dodges to meet this trouble on smooth floors. Into each tripod leg, about a foot from the point, is inserted a picture ring. A piece of stout tape passes twice through each ring. The ends of the tape are "bow-knotted."

My newest dodge now published for the first time is this. Buy 3 yards of chair webbing—the material about 2 inches wide which is used underneath the seats of chairs, etc., to support the springs, stuffing, etc. Cut this up into three equal pieces. Bind over each raw end to prevent unravelling. Get a large brass curtain ring about the size of a small bangle. Pass through the ring and sow down one end of each piece of webbing. When laid on the floor the three pieces spread out at more or less equal angles, but admit of enough side shift for all practical purposes. The points of the tripod rest on and are pushed into the webbing. There is no fear of any slipping. The advantages of this dodge are, cheapness, lightness, compactness, will not break, does for any tripod, without any other rings, etc., and the tripod points can be easily shifted about.

Windows facing the camera are apt to give halation, hard lights, etc. The way to meet this is to cover up the window—preferably the outside—for the



THE YELLOW DAISY *Flora Lewis Marble*

greater part of the time of exposure, say three-quarters or even nine-tenths of the time, and then uncover just long enough to give bars, etc.

The new "Hydra" plate. This is not any relation to the nine-headed fabulous monster, but a dry plate in which a salt of Hydrazine is used in its preparation. The result is that we can give the "hydra" plate, ten, a hundred, or even a thousand times normal exposure and get quite good negatives without any signs of reversal. For anything up to forty or fifty times normal exposure one can use pyro soda, but beyond these limits the special developer should be used.

In this note I do not purpose to go into working details as my own experiments with this plate are not quite finished. But it may interest readers to get a general notion of how this non-over-exposure plate works. We can imagine that the impact of light on the plate knocks off the shackles binding the atoms of silver and bromine, but these would tend to recombine, so a bromine absorbant is provided in the film. Now in the special developer it seems that we have an agent which dissolves the silver bromide of those parts of the plate which have been unaffected by light, and in some way carries it to the light affected parts and deposits it as metallic silver retaining the freed bromine. The result is that where light has not acted the developer has no effect, but where a nucleus has been provided, we can, with time, get almost any amount of deposit. I have got very vigorous contrasts of strong density and clear glass—a property likely to be very valuable when dealing with feeble contrast subjects from which we require strong contrasts without intensifying and have clear glass shadows.



THE APPLE BLOSSOM *Flora Low's Marble*

Another point is that as greatly prolonged exposure does not entail reversal we can "expose for the shadows and let the highlights take care of themselves" as the old maxim tells us to do. In fact we here have a means of bringing a long range subject within the compass of ordinary printing papers.

Again hydrazine applied to lantern plates gives some very interesting and valuable properties. For instance we can give a short exposure and develop the image in the usual way. We can print the plate right out as we treat ordinary P.O.P. Or we can partially print-out and finish by development. Then again we can get quite a useful varities of tones, *i.e.*, colors, by fixing a print-out result in different strengths of hypo—or by



WILD BALSAM APPLE *Flora Lewis Marble*

toning in the usual way.

The plates are being put on the market by the Paget Prize Plate Co. Some of the earlier boxes went out without any instructions and I have heard of difficulty in consequence; so just one word of warning in case such a box should reach any reader of this note. The special preparation of the plate leaves the film coating acid. Before the plate goes into the developer this acid condition should be neutralized by a one or two minutes bathing in soda carbonate, say 20—30 grs. of the crystal form per oz. of water. After this a minute's rinsing in water and then a pyro soda developer, with an extra dose of bromide if the exposure has been generous, may be used. For normal exposures the bromide in the pyro soda developer should be omitted. These plates certainly place a new and valuable power in our hands. I shall have more to say about them very shortly.

HAS the reader ever realized the undoubted fact that the flow of time is continuous, so that each individual event happens only once in the world's history? When a number of similar events follow each other in series, as, for example, the blacksmith beating iron on his anvil, careless thought may regard each event as the "same" thing, but this, of course, is not the case. This point should be fully realized by the photographer, who perforce deals with an event which has not before happened, now happens, and will never happen again. That modern apparatus and materials enable the photographer to secure a lasting record of a fleeting event—now gone forever—is one of the most wonderful things in these wonderful times. Each exposure represents a slice taken out of the flowing stream of time—the past is still present. Nothing except photography can do this in so realistic a manner.

FROM A REALISTIC POINT OF VIEW

BY E. L. C. MORSE.



IN THE July number of THE PHOTOGRAPHIC TIMES Mr. Sydney Allan has an interesting criticism entitled "The Making of a Picture." The subject in question represents a gypsy telling a young woman's fortune, while a young man in hunter's garb is looking on. The critique of Mr. Allan is luminous and instructive from a pictorial point of view, but it occurs to me that there is a side of the question not discussed, and that is its realism.

A picture may satisfy a painter because of its arrangement of light and shade, grouping of figures, its simplicity and directness, yet it may fail to satisfy one who can understand all those points and at the same time notice its defects from a realistic point of view. If the editor will kindly reproduce one of the pictures, I will attempt to show wherein, in my humble opinion, the picture in question fails when viewed from a realistic point of view.

Let us take Fig. 2. To a person who has ever really camped out or has had first-hand acquaintance with gypsies (one need not be a Borrow), the first-point raised is, to whom belong that fire and cooking apparatus? As a matter of cold fact gypsies never camp that way, and it must belong to the young couple. Consequently the gypsy woman must be a visitor to the camp. Now, has the reader ever had a gypsy come in to his camp? If so, does he not see the incongruity of the seated position of the fortune teller? A gypsy woman doesn't wear that kind of shawl anyhow, especially on such a warm day as the surroundings indicate. Then again gypsy women don't wear that sort of a tailormade skirt, neatly ironed and pressed. In fact that very modern and modish skirt kills the whole thing from a realistic point of view.

As a hunter, the young man is not convincing; he isn't hunting; he looks to have just stepped out of a bandbox. He wouldn't shoot a rabbit. The game he is accoutred for is women's hearts. A gun in his hands is a superfluous anachronism. He clearly belongs behind the ribbon counter. A yardstick would have become him better. At any rate he certainly does not look the part of a hunter.

The young woman's face, turned away from the group, is delicious and lovable. It makes the picture, in spite of the obviously incongruous environment. But the right hand in juxtaposition to the left elbow is unpleasant; it gives one the feeling that it is an outgrowth of the elbow; a deformity.

Another point, in which any person who knows the tribe will bear me out, is this—gypsies do not hold hands so far off when studying them. Of course this matter of telling fortunes is a rank humbug, but the gypsy always pre-



THE MAKING OF A PICTURE *A. H. Nicolas*

tends to bend over the hand and study it carefully. They invariably twist and turn the hand and hold it at various angles before uttering a word. In the picture in question, the old lady in the excessively warm shawl and the tailor-made skirt does not play her part well. She is clearly a nice amiable old lady, well groomed, in comfortable circumstances, the mother of a family in good social position, here masquerading as a gypsy fortune teller. "Mother" doesn't look the part. She can preside at a social function with dignity and ease, and as a hostess in her own home; at a ball, at an opera or in a Woman's Club she is a success, but, as a gypsy, the dear woman is not a success.

My criticism of the whole picture is that it is stagy and lifeless; clearly a pose for a photograph. The young lady is not interested in her own future; whether she will soon be married or not; whether her life is to be misery or happiness; whether she is to die soon or live long. Nothing of the sort; her face indicates that she is listening languidly to a poem of Wordsworth or Rosetti; nothing is being said that really interests her very much. It is a beautiful pose and a fetching expression, but absolutely unsuited to the surroundings.

SELENIUM AND COLOR PHOTOGRAPHY

BY SAMUEL WEIN

Having had the opportunity to do some scientific investigation work with selenium as applied to color photography, I have come to the conclusion that selenium will solve the problem which confronts so many photographic technologists and chemists.

Up to the present writing and as far as my knowledge conceives, the only system of color photography that has had any success is what is known as the three-color process. However, I might say right here, the only process which has been employed, the three-color process, while satisfactory to a certain extent for book illustrations with printer's ink, has met with no great success in making color photographs, mainly on account of the cost and the excessive amount of time and labor necessary to produce the finished picture. Besides this they have not been able to make these pictures on papers.

Recently, while developing a photographic film, using a special selenium developing solution, I have found the film contained the original colors of the object which I had taken. But on placing the film in the fixing solution, the colors gradually faded and the film then was semi-opaque to transmitted light.

I then took another photograph, the subject of which contained many colors, and, upon developing, I found the film to contain the original colors as previously mentioned, but remembering the results with the fixing solution, I thought it would not do to put the film in the fixing solution. Placing the film away in a light-tight box, I then made my own printing paper; this also contained the selenium preparation, and upon making the print with the film that I have placed in the light-tight box, I have found that the paper, when I placed it in the printing frame and made the exposure, also contained the beautiful colors of the film, but the colors on the film again gradually faded on exposure to the light, and when the paper was placed in the fixing solution the beautiful colors disappeared.

I am, at the present time, at a loss, and do not see how I can make the colors permanent. This I shall further investigate and will later present these and more facts, such as the formulæ of the solutions used in my experiments, in an article for the benefit of the investigators of this wonderful branch of science.

The methods of making red or green films and prints by the selenium solutions I think are also worthy of the reader's attention.

I have used many makes of films in my experiments and have found the following makes to be most satisfactory for my requirements, Eastman, Ansco, and Ensign films.

The writer's intention in writing this letter is to awaken an interest in this field and to cause some investigation work along this line, it may mean

fame and fortune to the discoverer who will perfect the method of color photography, and the only solution to my mind seems to lie in the use of selenium.

I am eagerly awaiting to hear the results from others who will make experiments with this wonderful mineral.



"THE TREE OF LIFE" — *W. I. Lincoln Adams*

A LITTLE START

First Paper

J. LIPPINCOTT FOSTER.



A POOR beginning makes a good ending." Maybe so; maybe so, but mine wasn't at all bad I thought as I review results; "No bad whisky." And looking back now from the healing distance of years. I doubt if ever before did amateur blindly making his way into the charmed circle of focusing, exposure, red light messing to the, "Well! ain't dat a shame," feeling when he will see the full results of his blame carelessness somewhere by the bright-white light. But then we all know such things as a little mistake only happen at the very beginning of things. Yes, as I started to say: I think never did one of the first-starters at viewing the ground glass, in all the history of amateur photography make such a pikery, dinky little home-made effort to catch and retain the sun-image as I did. It was such a measly pale pink gasp at the subject for a full-grown man, as to be grotesquely beautiful, and worthy of being told—to encourage a lot of faint-hearted outsiders to make a start, some kind of a start, any old start, for when once started they are like the kid playing base-ball whose bat has just assisted a delicate-fibred hit to get a-going and who immediately lets the bat slip out of his hands, regardless of imminent danger of busted heads, and streams away working every muscle to reach first base ahead of the ball; and the loudest yell of all among the chorus of shrieks behind him to encourage him on his way is, "Yeh *got* to go."

Just so it is with the amateur photographer, no matter how cheap and timid a little break he makes into the charmed circle, once inside he comes under a spell that never leaves him—nor does he wish it to—until he dies; and in all that time he is ever on the lookout for something in the way of tackle better than he has, and getting to it quickly when he sees it, if the coin is sufficient. The great underlying thing here is like what Br'er Fox said: "Git him used to the bag."

This is the how of it: The time was 1889, I had looked at photo-advertisements in the magazines, every month, and peered through plate glass at grand frames full of lovely purple albumen prints, samples of instantaneous amateur work displayed in the windows of various optical and scientific instrument stores of the city as samples of what their outfits were capable of doing in daring hands, until I could bear no more without shrieking. Says I to Clarice: "Something desperate has got to be done about this thing, I can spare no money for fine cameras and full outfits, I am quite entirely busted, really, but I have

got to get into this game somehow." Then I began a collection of catalogues.

I was no boy, but would fetch thirty in two jumps, so was suposed to be old enough to have some wisdom. "Knowledge comes but wisdom lingers."

Nothing truer than that was ever written since man began the setting down of the thoughts he thinks he thinks. So with all my study of the catalogues, I couldn't make anything work out to a beginning for me, no matter how low the lowest of the low-priced outfits were in the catalogues. The trouble was perhaps that the lower the price the less liking I had for them.

"No," I said, to Clarice, I can't expect much on my capital, if I only get a good outline I will be satisfied. Good-bye! Yes! I'll be around all right to-night in good time enough you may be sure; dress early for the time I pass with you is better than the ball."

Maybe the reader thinks if I could go this pace, easy should it be for me to dig up enough little coin for a modest "camera and full outfit," with which to make a beginning, the allurements of which were deliciously set before his hungry eyes in picture and type in the catalogues. But the reader would be in error. The pace took it all, besides I had a yacht to feed and clothe.

Nevertheless I had fully decided that the full cycle of time had elapsed, and I intended to boost me in somehow. From freckle-faced boyhood I had loved to "make things" myself, especially things that "would go," like sailing boats and windmills. So I set about the making of a camera, but don't think



STILL WATERS *J. R. Peterson*

of any kind of camera you ever were acquainted with or ever knew, or saw the picture of, when you think of the one I made.

I have skirmished around this much because I really was ashamed to tell what it was. Well it was Gravely smoking-tobacco box of dovetailed white wood, about four inches long by three inches wide and two inches thick as memory serves me. With a pinhole? No ———! my soul didn't long for pinholes; some there be that hanker for them, but mine is not built after that fashion. I used a cheap little German magic lantern for projection, the object glass, a double convex lens, was just the focal length of the box, it was put into the hole in the front from the inside until its flaring mounting stopped it from coming quite through to the front. A piece of heavy cardboard with black velvet glued to it was used for a shutter, it was screwed onto the front and worked like a switch, uncovering and covering the lens. It was perfect as a light-stopper. The inside of the box was dead-blacked, and the outside was covered with heavy red felt wallpaper glued fast; no light streaks for me. I intended to tack the negative on the lid with tiny bronze tacks, and slide the lid down its groove in the box which would bring the negative in the same place that the ground glass had before occupied. I bought a piece of ground glass. That was my starter in expenditures photographic. If I could only have foreseen.

I enjoyed myself in quite silly fashion with that lens and box and fine ground glass peering at the gorgeous colored views thrown on the ground glass as it was pointed out of about every window of our suburban residence.

Did it work? I was having enough fun with it as it was both in realization and anticipation to be in any hurry to make tests that might pain me, besides to-morrow the ice-yacht—this was another one—goes out. Billy was up and said the ice would be all right, "Sure it is all right, Billy?" "It bore me!" Half a look at the altitudinous rotundity of dear Billy fully assured me that it would be safe all right for the sail-covered flyer to fly o'er the frozen surface ,and when that is so everything, included cameras, could wait, and besides the ground glass was all I had, so I was glad of an excuse to lay off for awhile and rest up, for the thought of development scared me, and the word "hypo" was to me as a red rag to a bull; there was something sissy about the look of it,

The sailing was still pretty good when I came back to my child the camera with the lens and ground glass; of course, if the ice became first-class again the darling must wait.

I made out a list of what I thought was the necessary number and amount of things needed to either give me a running start or cure me forever of wanting any more. I could not use plates for the lid of the box fixed the size of the negatives at 2¾ x 1⅞ inches and I said to myself as I looked over the various breeds of plates and paper in the catalogues that it would have to be something that could be cut with scissors to fit and I debated if negative-paper could be cut that way, the word negative seemed to say "No," but the word paper seemed easy to cut. So I put down a generous supply of a considerably larger size even if its list price seemed quite high enough.



AN OVAL PORTRAIT *by Pach Bros., New York*

A four ounce graduate, a minim glass, three 4 x5 trays as there was no smaller, hypo—I sickened as I wrote it,—bromide and a two ounce bottle of ready-made concentrated pyro developer which seemed like the magic bottle that held the genii to me. As of course I must see results in positive, the print question was settled in a way to bring tears to the eyes of an old-timer.

Why not blue prints? I concluded there was enough blue in my own system to have any more around, and they were like me also in the way they were "done." Simple and easy!

After all my reading in the catalogues I had developed within me a strong horror of the toning bath, it seemed worse to me than a tub bath does to a tramp. Why it should have acted on me so I do not know, but I could not make myself go to it. Along side of it developing didn't seem so bad, and if I could develop in one way I could in another. If pyro why not oxalate of potash and iron on bromide paper and have black and white pictures. That was what charmed my soul—the idea of black and white pictures. Artistic! This seems as good a place as any to say that I got some black and I got some white. What matter, these little things are corrected in time.

When I gave in my order to the clerk in the great scientific and optical goods house with a photo department on the side—inside, I did so with an air that was intended to, and I hoped impressed him with the idea that it was only what I was accustomed to usually order every few days.

Neither the order nor the amount to pay turned out anything like I had expected; the price was much below my catalogue list price, and to my order of negative paper he added another two dozen package large size and the price for the lot was only half what I had set down. I was not aware of the fact that negative paper as ammunition for Kodaks was completely outclassed by the newer American Stripping film, which itself was thrown away, in a year or two on the perfection of the transparent film, and they were glad to get any price for it. If I had not been an ignorant new-starter I would asked the clerk if that was all he had, and why put a price on it; which would have shown my cuteness and made the clerk careful over all the figures in the little list.

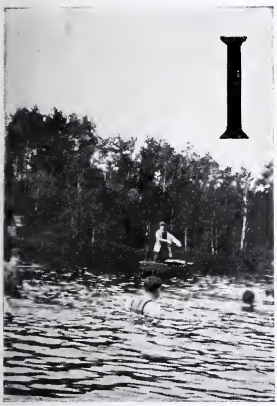
But not being able to peep in any fashion because of ignorance, I took the goods the gods of the place provided, paid the modest sum and skipped me home again by way of street car, ferryboat and train, and never stopped until the precious package was deposited along side the camera in the privacy of my 3A story room, where the experiments were to be carried on.

In entering into new realms 'tis always well to take plenty of time to gloat as there may be no occasion for such after experimentation; a good plan to follow, one that will never fail, is to do the gloating in advance; then no matter how things go you have had your little gloat and nothing can deprive you, and you are the happier thereby. Anticipation yields as much fun as realization. So I lit a pipe, leaned back in the big rocker and gloated over the camera and outfit.

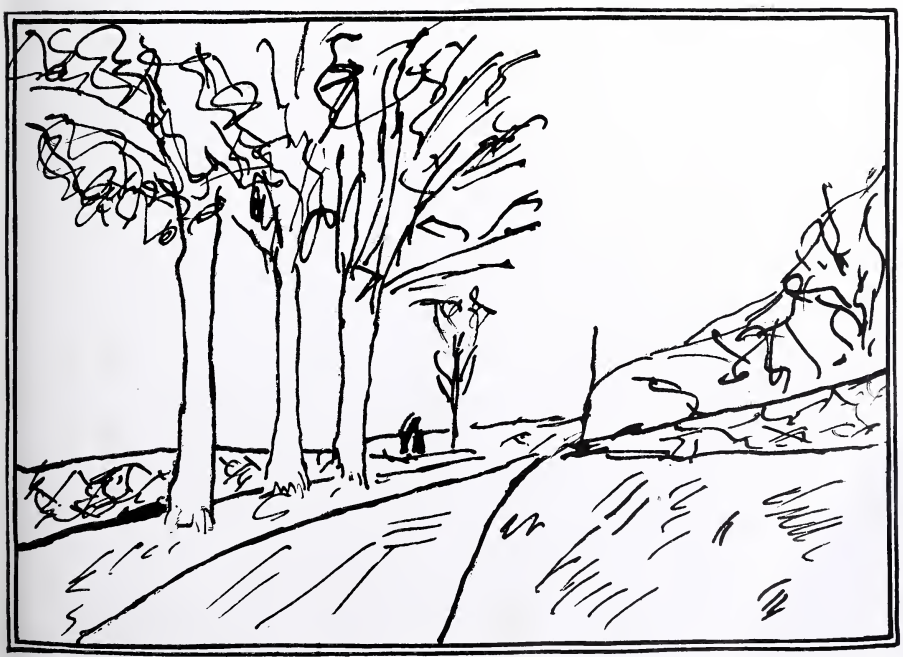
(*to be continued*)

PHOTOGRAPHY AND THE HAND CAMERA

BY HARRY A. BRODINE.



IT HAS often occurred to me that the hand camera was in a great many instances the cause of a waning interest which is so often displayed by the amateur photographer. After the first flush of enthusiasm has worn off the camera is disposed of in the most convenient manner possible and probably an embryo pictorialist has been lost to the ranks. I think that an amateur starting picture-taking with a stand camera has more chance of becoming a proficient pictorialist than one who uses a hand camera, for the reason that it is almost an innate quality within most persons to find the most pleasing arrangement of an object whether it be hanging pictures, decorating a room, or photographing some pleasing object. With a stand camera it is more what we see on the focusing screen than anything else, which teaches us composition, as much so as the study of good photographs or fine paintings. In the hand camera we have only the finder to judge by and many a view is taken impulsively, which will have no inherent picture-making qualities.



A SKETCH *by Harry A. Brodine*



THE ORIGINAL PICTURE. (A MOUNTAIN ROAD) *Harry A. Brodine*

Of course for the record of a day's outing a hand camera is very useful, but it is conducive towards a very large waste of material and the resulting prints are soon disposed of in a hodgepodge fashion.

In competent hands a hand camera will yield very good prints which, although small, can be enlarged. I have made quite a few hand camera pictures myself and am well pleased with the results, but one should do the finishing of their own pictures to get the greatest amount of pleasure from their small snapshot pictures. The main thing in hand camera picture-taking is to include as little as possible of unnecessary detail. One of my small snapshot pictures was accepted at an exhibition after being passed on by the jury of two painters and a photgrapher. This was a contact print from a 2 ½ x 4¼ film and while it was accepted, two prints which had won prizes before were rejected notwithstanding that they were also much larger. In my opinion it was the simplicity of the composition which accounted for the acceptance.

When one has learned to produce simple compositions then the pleasure of photography is experienced. One of my prints in the May issue of the TIMES, wil serve to illustrate to point. I have made a rough tracing of this picture which is reproduced here, showing the few lines necessary to make a good picture. I, myself, think this is one of the best pictures I have ever made because you do not have to ask what it is, it tells its own story more forcibly than words. The eye is led to the principal point of interest and is not allowed to roam all over and out of the picture. A fine framed original in sepia holds the best spot on my wall, notwithstanding that I have other

prints which have been prize winners. I think if you compare it to "Trees in Blossom" on the same page it will be at once apparent what is meant by simplicity and the value of it. This picture was made with a 5 x 7 camera and the technical work done as described in the May issue.

It may not be in accordance with the nature of this article, but I would like to say a few words on the amateur using a little commonsense which I have sometimes tried very hard to observe in some, but found totally lacking. Last month an amateur had me develop some films for him which turned out to be badly out of focus, and on asking him if he paid any attention to the scale on his camera, said he had not. I explained the working of same, and incidentally inquired if he had read his instruction book, to which he replied, "Oh, I've got it lying around somewhere home." Now if he had only bothered for five minutes to read it he would have saved himself a couple of dollars in wasted films and a lot of disappointment. After a while I had the pleasure of developing some other films and on one six-exposure roll he had obtained two very good negatives of the battleship North Dakota, which happened to be nearby, but the remaining four negatives were entirely blank. I asked how it was he had failed to get anything on the other four exposures and was surprised to hear he had been trying to snapshot lightning. Now it is very simple to snapshot lightning if the camera is rested on a tripod or some other object, with the lens open, but he had waited for the flash to appear first and then take a snap at it in a 1/100 of a second. It is ridiculous to suppose that one can anticipate a flash of lightning when it is only traveling at the leisurely rate of 288,000 miles per second. Nuff sed. Use your brains.



IN THE HAY FIELD *by W. I. Lincoln Adams*

Editorial Notes

THE hand camera worker frequently has to take his subject just as it is or pass it by. That is to say, he is not able to remove a bit of paper in the foreground, avoid an intruding branch, a railing, or a bit of rigging. Such a feature may so greatly detract from the resulting straight print, that he decides to abandon the negative entirely. This extreme course is not so imperative as some workers suppose. In many instances if the intruder be small it can be entirely removed, or if it be large its undesirable effects can be greatly subdued, if not entirely suppressed, provided the worker is prepared to exercise a generous measure of patience and employ a quite moderate degree of skill. Such an exercise will not only vastly improve the resulting print, but will also have the wholesome effect of stimulating greater care in selection of subject.

FIRST, take such a simple yet common case as a bit of waste paper on the foreground pavement, which comes out in the print as an irritating patch of assertive white. The simplest and safest procedure is to spot or paint out the obtruder by applying water color with a nearly dry brush to the print, so that the patch is made to match the surrounding ground. We can now photograph our retouched print and get a new negative without the blemish. As a second instance take the case of a spotty, patchy bit of foliage. As before, we can work on the print and get rid of the lighter tones so that they match the surrounding parts. We now photograph this print, and then work on the negative film with brush or pencil, and get rid of the over-thin dark-printing parts. In extreme cases we may have again to work on the print, but if this be done with care in the first instance this should not be necessary.

ANY aid towards estimating correct exposure is likely to be welcome to the majority of workers. Therefore the following gleanings from Mr. Bennett's lecture at the Royal Photographic Society on architectural photography are given. Assuming the use of stop *f*16, and the best light of the year, the following may be taken as typical exposures: Domestic interior, light walls, 1 minute; ditto, dark walls or furniture, 4 minutes; rooms without furniture, half a minute; churches, cathedrals, general view of nave, well lighted, 1 minute; poorly lighted, 4 minutes; aisles, plain glass windows, 1 minute; with obscured windows, 3 minutes; stained-glass windows, two to

four times that with plain glass; choir generally requires extra time on account of dark stalls; crypts anything from 10 minutes to 2 hours. The above times of exposure will require augmentation in accordance with the degree of falling off from the assumed conditions of best light of the year.

BEGINNERS—and others—interested in home portraiture often experience a good deal of difficulty in timing their exposures, which are usually a little too long for ordinary shutter work and yet rather short for timing with a watch, ranging, let us say, from half a second to 3 seconds or 4 seconds. How to meet this difficulty is easily learned. Take a piece of string about 44 inches long. At one end make a loop which easily slips over the finger to the other end, and 40 inches from the loop attach any small, heavy object, *e.g.,* a bullet, key, or knife. With this pendulum we get a 1 second swing. It is now easy to learn the right speed of saying "one, two, three, four" to fit in with each 1 second swing. This gives us seconds and quarters. Some workers have a 9-10 inch steel chain to their key bunch, which gives half-second swings with quite sufficient accuracy for all practical purposes.

THERE is a widespread but erroneous notion that the first and chief business of the artist is to depict the facts of nature with the utmost truth of literal presentation of which he is possible. But this is not art. The very first step, viz., putting on the one plane of the paper objects lying on different planes is a fundamental departure from fact. Our two eyes see different views of an object. Both these cannot be depicted at one part of one plane, and so on. In brief, the whole business of picture making is based on illusion. The picture does not pretend to be a copy of the thing itself—as a wax model may in a sense be said to be a copy of a human being. The picture frankly aims at recording not the thing, but the appearance of the thing Without diagrams it is not possible to give any useful account in detail of Professor Stirling's lecture, beyond saying that it brought home to all present the fundamental fact that the eye—wonderful as it undoubtedly is—is not an infallible guide in many ways.

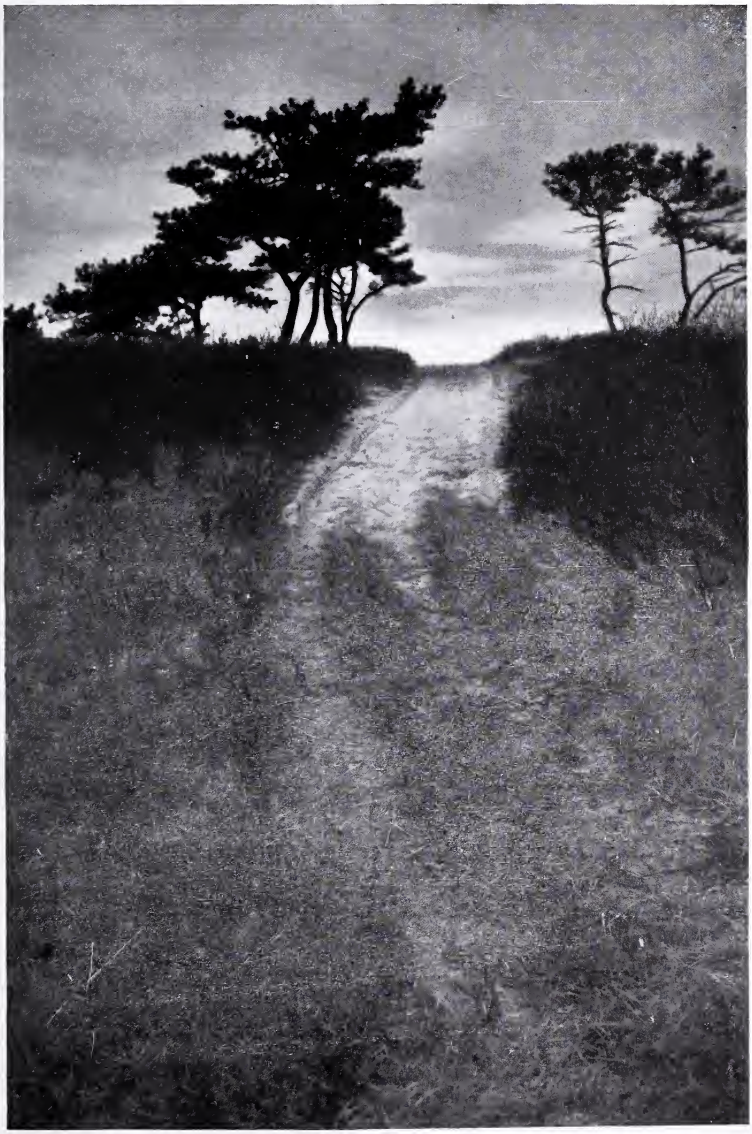
A POINT of considerable practical importance cropped up a few days ago at a private gathering of experts, viz., what is the best thing to do by way of development with a plate that is known to be under-exposed. All agreed on one point—viz., that what is normally termed over-development should be avoided. In such a case our object is to induce the least exposed parts of the plate to develop as far as possible without obtaining excessive density on the more exposed high lights. That is to say, our aim is to produce a fully-developed plate that does not exhibit extreme contrasts of density.

How this is best secured elicited a considerable variety of opinion. It may therefore serve a useful purpose to summarize some of the advocated systems, so that workers may try more than one plan of action.

FIRST comes the method of using a developer strong in alkali, but weak in reducing agent—*i.e.,* an active, but dilute developer. For example, a full dose of ammonia or soda carbonate, a reduced quantity of pyro, and only just enough bromide to prevent fog in the case of ammonia. With most plates no bromide is required with soda carbonate. The second plan is to use a quick-acting agent like metol, that brings out all parts of the image before the highlights have had time to gather much density. While the negative is in this thin, soft contrast stage it is fixed, washed, and then intensified. The third method is to use a developer of the Rodinal or par-amido-phenol type, and allow the plate to remain in this only until the image just begins to appear, when the plate is withdrawn, dipped for half a second in water to remove what developer has not been absorbed by the gelatine, surface-dried with dry rag, placed horizontal, in the dark, and time allowed to let the absorbed developer do its utmost. The process may then be repeated.

TAKE care of the foreground and the other parts will take care of themselves, is an old maxim that is too often forgotten nowadays, when the hand-camera is almost the only form of camera in use. Like all good maxims one must not stretch this one too far. But the point which nowadays seems to call for more attention is the vast importance of remembering that the shorter the focal length of the lens the greater the size difference of foreground and background objects. In other words the shorter the focal length the more accentuated is the perspective or foreshortening effect. Now, seeing that the quarter-plate size of camera fitted with a lens of about 5-inch focal length is so general, the importance of giving careful attention to the foreground part of the picture has only to be mentioned in order to be recognized. This, at any rate, should be the case.

TO prevent misunderstanding on this foreground topic one may point out that care is needed in several ways. Do not attempt to include too many objects of interest. Crowding means confusion. Simplicity lends aid to strength. Avoid having two or more foreground objects of equal interest, as you would avoid two acting captains on one ship. If the objects are similar seek variety by grouping, different lighting, definition. In general avoid a looking-down-upon-the-foreground arrangement. This is too suggestive of a bird's-eye view. Avoid similar objects (*e.g.,* heads) in horizontal or vertical lines. Avoid equal interspaces. Avoid symmetrical arrangements. Avoid objects giving strong reflections on water. Seek for simplicity of grouping and of lighting. These are the two chief factors in successful picture-making. Finally, avoid all hackneyed subjects.



THE LONELY ROAD

Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

CITRATES AS RETARDERS.

By Dr. C. Steurenburg.

The so-called retarders used in developing pictures upon silver bromide and chlorobromide gelatine emulsions play a very important and significant role. They not only retard the action of the developer, but through suitable application considerable variation in exposure may be equalized.

The character of the prints and the tone is also under control. The retarder commonly used in alkaline and ferrous oxalate developer, is potassium bromide. But there are other substances which through their chemical properties are capable of modifying the reducing action of the developer, and thereby vary the character of the pictures. They also influence the tone of the prints. To obtain a brown tone on bromide paper with ferrous oxalate developer, usually potassium chloride is used, which also acts as a retarder. But of greater significance are the citrates, which according to their composition, have citrates of the alkalies are used, such as an acid or neutral reaction. Usually the citrates of the alkalies are used, such as potassium, sodium and ammonium and some of the alkaline earths; of the latter the magnesium citrate is the most important.

The use of citrates, at least in ferrous oxalate developer, is not new, for in the 80's of the last century, Sowan used a number of citrates in ferrous oxalate developer with very good success. Ferrous oxalate developer is used to a considerable extent for developing bromide and "gas light" papers and for this potassium bromide is almost exclusively used. As the use of citrates in the above developer is but little known, it would not be out of place to recall the same. Likewise might be said of their use in alkaline developers.

Cowan recommended the following citrate developers:

1. AMMONIUM CITRATE DEVELOPER.

English		Metric
	A	
10 ozs.	Water	300 c. c.
4 ozs.	Citric acid	112.0 gms.
1¼ ozs.	Ammonium carbonate	37.0 gms.
	B	
10 ozs.	Water	300 c. c.
10 drops	Sulphuric acid	10 drops
3 ozs.	Ferrus sulphate	90.0 gms.

For use, three parts of A are mixed with one part of B.

2. CITRO-FERROUS OXALATE DEVELOPER.

English		Metric
	A.	
10 ozs.	Water	300 c. c.
2½ ozs.	Potassium citrate, neutral	80.0 gms.
1 oz.	Potassium oxalate, neutral	30.0 gms.
	B	
10 ozs.	Water	300 c. c.
10 drops	Sulphuric acid	10 drops
3 ozs.	Ferrous sulphate	90.0 gms.

For use three parts of A are mixed with one part of B.

3. MAGNESIUM CITRATE DEVELOPER.

English		Metric
	A	
10 ozs.	Water	300 c. c.
2½ ozs.	Citric acid	75.0 gms.
1½ ozs.	Magnesium carbonate	47.0 gms.
	B	
10 ozs.	Water	300 c. c.
10 drops	Sulphuric acid	10 drops
3 ozs.	Ferrous sulphate	90.0 gms.

For use, three parts of A are mixed with one part of B.

4. SODIUM CITRATE DEVELOPER.

	A	
10 ozs.	Water	300 c. c.
2½ ozs.	Citric acid	75.0 gms.
4½ ozs.	Sodium carbonate	130.0 gms.

B

10 ozs.	Water	300 c. c.
10 drops	Sulphuric acid	10 drops
3 ozs.	Ferrous sulphate	90.0 gms.

For use, three parts of A are mixed with one part of B.

With the same exposure and sensitized material, the time of development and the resulting tone will vary greatly.

Developer number one yields a finished print in about four minutes, with a warm brown tone. Number two requires only one minute and the tone is black.

With number three, the time is eight minutes and the tone warmer. While number four takes the longest time and gives the warmest tone. By combining the various developers given above a great variety of tones may be obtained. Tests made by myself led to very gratifying results. In order to obtain vigorous and clear prints sufficient citric acid must be added to the developers to insure an acid reaction.

Among the alkaline developers "pyro" and Azetol give the best results with citrates.

"Pyro," for instance, may be preserved with sodium sulphite and citric acid and the final addition of the alkali, either sodium or potassium carbonate, forms the alkaline citrate.

The action of the citrate solution is quite energetic and the addition of several drops will be perceptible.

One of the advantages of these citrate retarding solutions is that greenish tones are never produced with them, as is so common with potassium bromide.

Ammonium, magnesium, potassium or sodium citrate do very well in alkaline developers for retarding the action and varying the tone.

Potassium citrate yields a black tone, while ammonium, and especially sodium citrate, gives a very brown tone. For their practical application it is best not to use the citrates as salts but to prepare a saturated solution of citric acid and add the various carbonates, according to which particular citrate we wish to prepare, until the effervescence ceases.

As citric acid is a tribasic acid considerable amount of alkali is necessary to neutralize it.

AMMONIUM CITRATE SOLUTION.

3⅓ ozs.	Water	100 c. c.
½ oz.	Citric acid	15.0 gms.
½ oz.	Ammonium hydroxide, Sp. Gr. 0.88	14. c. c.

SODIUM CITRATE SOLUTION.

3⅓ ozs.	Water	100 c. c.
½ oz.	Citric acid	15.0 gms.
4½ drams	Sodium bicarbonate	18.40 gms.

POTASSIUM CITRATE SOLUTION.

3⅓ ozs.	Water	100 c. c.
½ oz.	Citric acid	15.0 gms.
4½ drams	Potassium carbonate	18.40 gms.

As ammonium hydroxide is volatile it slowly weakens, the solution should be tested with litmus paper and if still acid, more ammonia must be added.

These solutions should be preserved in stoppered bottles and when about to develop five to ten drops should be added to every 30 c. c. (1 oz.) of the developing solution. The citrate developers are particularly well suited for lantern slide development.—*Das Atelier des Photographen.* Vol. 16, No. 9.

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REDUCING CONTRASTS, BY PUNIER.

Negatives which are too contrasty may have their gradations softened by soaking them first in water (if they are dry) until the film has become soft and placing them in the following bath:

English.		Metric.
3⅓ ozs.	Water	100 c.c.
75 grains	Copper sulphate	5.0 gms.
75 grains	Sodium chloride	5.0 gms.

The tray with the negative is rocked until the plate has become white through and through and no black spots show.

The plate is now washed and developed with any suitable developer, very much diluted, but ferrous oxalate should not be used.

The plate is to remain in the developer until it is evenly black on the back, and the surface has a grayish white color.

It is now placed in a fixing bath and then washed and dried.

—*Photo-Gazette, Kamera Kunst,* Vol. 8, No. 10.

Discoveries

[All readers of The Photographic Times are invited to contribute to this Department reports of their Discoveries for which we will allow One Year's Subscription, on publication of the contribution.—The Editors.]

HOW TO TITLE NEGATIVES.

The question how to title negatives satisfactorily without a special outfit has bothered some of us. Negatives may be titled on the glass side with black ink, using a writing pen and it works satisfactorily. The title being put on the back does not need to be reversed as when putting it on the film side. The ink may easily be cleaned off the glass when the title is not wanted on. When using films the ink will not clean off. The title should first be outlined on paper and the negative laid over it and the lettering traced on. This way you will have the lettering on a straight line and know just what space it takes up before putting it on the negative.

J. J. Harman

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DEVELOPING IN WINTER.

I took an ordinary hot water bag, and filled it about half full with hot water (not boiling) and set the developing tray on this, and found that it kept the developer at just about the right temperature in cold weather. In hot weather, I fill the same bag about half full of cracked ice, and setting the tray on the bag, find I have no trouble with frilled negatives.

W. H. S.

☆ ☆ ☆

SUBSTITUTE FOR GROUND GLASS.

Procure a sheet of semi-transparent celluloid and cut the same size as the ground glass. This should be carried on trips to serve in case of accident. The celluloid is stiff and may be fastened in place and used all the time instead of ground glass and no breakage will result. This has a surface on one side similar to ground glass and lines can be drawn on it with pencil when desired. The material can be obtained from dealers in artist's materials. Tracing cloth which is very tough and durable may also be used in case of necessity, but the surface cannot be made as even as celluloid. It is necessary that the surface be perfectly even for focusing properly.

J. J. Harman.



Among the Camera Clubs

[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—THE EDITORS.]

We wish to say a word in praise of the publication just gotten out by the California Camera Club called the *First Annual*. It is printed on light buff pebbled stock, which gives a beautiful soft tone to the half tones with which it is plentifully illustrated. Some of these illustrations show great merit, and we congratulate our California friends on the fine showing which they have made in this, their *First Annual*. We wish to commend especially the frontispiece, "On the Channel," by L. A. Goetz, "Resting," by W. H. Rabe, and "Old Dutch Windmill," by C. A. Mauser. The booklet is arranged in an artistic and tasteful way, and we believe that those of our readers who have seen it will join us in praise of the high standard of work shown therein. We quote the following of a short foreword, written by their president, E. H. Kemp:

"On behalf of the California Camera Club I desire to extend a cordial invitation to all persons who are interested in or who practise photography, either as a profession or for pleasure, to make our club rooms their headquarters while sojourning in San Francisco or vicinity.

"Our members are at all times ready to extend the welcoming hand, and do everything in their power to make a visit to our city prove a lasting remembrance and a delightful recollection in the tour of any traveler."

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NOTES FROM THE ILLINOIS COLLEGE OF PHOTOGRAPHY AND THE BISSELL COLLEGE OF PHOTO-ENGRAVING, EFFINGHAM, ILL.

Mr. Huie Chow, of Canton, China, and Mr. Bau Ching Cha, of Shanghai, China, have enrolled at the college for the photographic course. These young men speak English fluently and are very progressive representatives of the new republic.

Mr. Geo. A. Frederiksen, student of 1908, visited at the college a few days last month. He has been spending the past year with his father in Porto Rico.

We were very sorry to hear of the death of Miss Tillie B. King, of 1905, who accidently shot herself with a rifle last month. She visited the college a couple of months ago and reported excellent success with photography in her home town.

Miss Grace Stockham, of 1909, has opened a studio at Mullen, Neb. Since finishing her course, Miss Stockham has held a position with a large firm of traveling photographers, visiting all parts of the country.

Mr. F. L. Thomas, who took a course in photography this spring, has opened a studio for amateur finishing and home portraiture in Portland, Me., and reports business excellent.

Mr. Guy R. Reynolds, who took a position last month in an engraving plant at Mobile, Ala., surprised his friends by announcing that he had been married several months to Miss Anna Margworth of this city. They will make their future home in Mobile.

Mr. Lawrence Day and Mr. L. L. Merrill, who have been spending the summer in Wisconsin and Ontario respectively, have resumed their work at the engraving college.

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A course in Photography at the Bedford Branch of the Y. M. C. A., Brooklyn, N. Y., will start Oct. 10, and continue through the winter of 1912-13. This course will be conducted by Mr. William H. Zerbe, an expert in this line, on Thursday evening of each week for twenty weeks. The following is an outline of the course. The choice of plates or films; exposure; development of plates and films, by tank, by tray, by factorial method; printing and developing gas light papers, choosing

papers best suited to negatives, modifying developers to obtain certain tone effects; a talk on composition; a talk on lenses, the choice of lens, explaining various lens terms; after treatment of negatives, intensifying, local and general, reducing, local and general, showing various other methods used to obtain pictorial results; making enlarged negatives, glass and paper, by the copying methods, from positives; lantern slides; brimide enlarging; home portraiture; flashlight work; two or three outdoor lessons, as may be decided upon by the class. Other subjects depending upon the progress made or as may be requested by the students.

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The Newark Camera Club opened their new rooms at 59 Mechanic Street, during the week of September 23-28. There were business meetings, social gatherings for the members and friends, meetings for the ladies, a night devoted to the Essex Camera Club, and two days for the public. Lantern slides were shown each evening.



WHEN THE SKY IS OVERCAST

Photographic Reviews

Photography takes an important place in a recent issue of *Knowledge*. First we have a solar eclipse photograph from the Paris Observatory by MM. Demetresco and Crojes with a ten mêtre focus telescope. This shows some features analogous to Baily's beads. Mr. H. H. Cowan contributes five characteristic lightning pictures taken last August in Scotland. Mr. E. Senior shows the comparative results of an ordinary and a hydra plate when photographing an incandescent electric light, reversal and non-reversal being clearly shown in the two cases respectively. Another note deals with the question of equivalent exposures with lenses of different focal lengths, stops and magnification, in low power photomicrography, tabulating and illustrating results obtained with lenses of 4in., 3in., 2in., and 4-5in. focal length.

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As only a very small proportion of photographers take the trouble to make and record careful comparative experiments, one is only too glad to welcome a note by Mr. Clarence Ponting in the current issue of *Photographic Scraps*. After trying various strengths of hypo solution ranging from 1 part hypo and 2 parts water to 1 part hypo and 15 parts water, with "Hyptona" prints, he comes to the conclusion that variations of strength of the hypo bath make very little difference in the final color of the resulting print, but that the stronger solutions tend to produce a colder sepia. Further experiments were made by passing the print first into a salt solution, rinsing, and then into 10 per cent. washing soda solution, and finally into hypo. This procedure gave a chocolate color. Mr. Ponting notes that with this paper there is no loss of half-tone detail, no matter how strong the hypo solution is. This feature is a very valuable asset with Hyptona.

"Old Paris, Its Social, Historical and Literary Associations." By Henry C. Shelley, Boston. L. C. Page & Co.

This book is a very handsomely illustrated work on fascinating Old Paris, including an account of the famous Cabarets, Hotels, Cafes, Salons, Clubs and pleasure gardens, fairs, fetes and theatres of the old. French Capital in the bygone times. The illustrations will be particularly interesting to our readers as they are very well executed, and breathe the spirit of ancient Paris. In preparing these illustrations many rare old prints in the British Museum were used, and these are usually unobtainable.

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The Paragon Manual of Photography (published by the Paragon Dry Plate Company, South Norwood, England), is the latest novelty to find a place on our table. Apart from its quite candid and legitimate advocacy of certain materials, the book covers a wide field of photographic work, including flashlight work, stereoscopic work, photo micrography, retouching, etc., in such a way as to give the beginner some general idea of these matters. Exposure, development, lantern-slide making, landscape portraiture, etc., are all dealt with in a brief but practical manner, quite well suited to an intelligent beginner. A noticeable feature of the book is its eminently helpful illustrations, showing errors of exposure and development. Some photomicrographs showing plate grain before and after development, also before and after toning, are especially to be commended.

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WHAT IS IT?

It has been our privilege and keen pleasure to review *Camera Work* for a long time past, but we have always felt the hopelessness of trying to give such of our readers

as do not see the magazine the merest glimmer of an idea of its contents. The latest number is "a great one." Its *raison d'être* is, as officially stated, the airing of two "articles" by Gertrude Stein. So that our readers may know exactly the sort of thing we are reviewing we shall plunge into the first of these at once and bring up a sample:

"There were very many who were wanting to be ones doing what he was doing that is to be ones clearly expressing something and then very many of them were not wanting to be being ones doing that thing, that is clearly expressing something, they wanted to be ones expressing something being, struggling, something being going to be some other thing, something being going to be something some one some-time would be clearly expressing and that would be something that would be a thing then that would then be greatly expressing some other thing, than that thing, certainly very many were then not wanting to be doing what this one was doing clearly expressing something and some of them had been ones wanting to be doing that thing wanting to be ones clearly expressing something."

The quotation has been checked over and is quite correct. It contains a deal about someone clearly expressing something, but we cannot honestly say we think the thing clearly expressed. But what of that! It is in a beautifully flowing style, and there are about 1,200 words of it in precisely the same manner, and it makes one think of unrolling wall paper. It would be pardonable to hint a wish for a more stirring plot; but there are many advantages outweighing that trifling defect. For instance, by the time one has read about 500 words one fancies oneself luxuriously soothed into somnolence by gently whispering parrots trained with a limited vocabulary. And if you should actually nod and lose your place it doesn't matter a bit, for this is one of those books you can take up at any time and dip into anywhere. It is quite impossible to say whether or not any mixing up of the manuscript pages has occurred at the printer's. This article is entitled "Henri Matisse"—of course, anybody could see it was about Matisse.—*The British Journal of Photography.*

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Handbuch des Vergrosserns auf Papieren und Platten, by Prof. Franz Stolze. Third edition, 1911. Ninety-eight illustrations. Published by Wilhelm Knapp. Halle, a. S. Germany. Price, Mk., 6.0.

Before this, the third edition, was issued, Prof. Stolze died and the work was finished by Alfred Streissler.

Enlarging is a subject which is receiving more and more attention every year. The simple enlarging camera which enables the amateurs to make their own pictures is a stimulating factor and the author, recognizing this, was moved to make known his knowledge and experience on the subject. The book is well illustrated with wood cuts and there are about ten half-tones.

The contents include sources of light, natural and artificial. In the latter are included various forms of arc lights, hand-fed and automatic, incandescent and Nernst lamps. Oxy-hydrogen, oxy-ether, oxygen and illuminating gas. The use of saturators, incandescent gas light, using either gas, benzine, ether or alcohol.

Acetylene and petroleum gas light. Light from magnesium tape and powder.

Production of oxygen and hydrogen.

Various forms of double and triple condensers, projection lenses and lanterns.

Useful accessories, such as vignettes and rapid focusing attachments.

Manipulation of the papers used for enlarging, developers and developing.

Tables for enlarging and reducing.

Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

Argo paper, of the Defender Photo Supply Co. is well named "The No-trouble Paper," for the irregular white lines and other defects which appear in many developing papers, do not occur with Argo. It is the same summer and winter, and it is making new friends every day.

* * *

"How to Make Good Pictures" is the title of a little book published by the Eastman Kodak Company, and for sale, by the publishers, at 25c. per copy. It is a photographic education in itself, describing just how to make good pictures, from the selection of the camera, to the making of the print, including enlarging, lantern slide making and other methods of reproducing the negative. It contains 160 pages of valuable information.

* * *

Portrait for August contains the testimonials of many of our leading photographers in regard to the Cyko Exhibit at Philadelphia, which were printed in our Convention Number, and these opinions are good proof that the claims made for their paper by the Ansco Company, are well founded. Cyko prints by many leading photographers of the country, exhibited at Philadelphia, made a deep impression on the visiting photographers. They were all exhibits by artists who are actually using Cyko in their daily work.

* * *

A new use for Kodak Velvet Green Paper has been found in connection with Velox Water Color Stamps, which give just a touch of color here and there to a straight print, which very much enhances its beauty. In almost any print of a flower or landscape subject, the predominating color should be green, because this is the predominating color of nature as the eye sees it.

* * *

One of the Eastman Kodak advertisements in this number calls attention to the way you can "double your good times" by developing your own films in the Kodak Filk Tank. As they say, "the development of a negative equals or exceeds the pleasure of making the exposure," and it is much more satisfactory to develop your own negatives than to send them out to some one who may not give the same attention to them which you would; furthermore, having made the exposure, you are familiar with the conditions surrounding the making of the negative, and can develop it more intelligently and with better results.

* * *

The Bausch & Lomb Optical Co. have just gotten out a folder containing eight examples of their effective advertisements with a frontispiece, showing a facsimile of their new catalogue and a number of booklets and circulars pertaining to the photographic goods which they manufacture. We wish to say in passing that these booklets contain many helpful suggestions in all lines of photographic work and may be had gratis by anyone. Address Bausch & Lomb Optical Co., Rochester, N. Y. The following is a list of the magazines in which their advertisements appear each month: Everybody's, Century, McClure's, Cosmopolitan, Harper's, Scribner's, American, Recreation, Outing, National Geographic, Country Life in America, Field & Stream, House & Garden, Life, Current Literature, House Beautiful, Suburban Life, Wilson's Photo. Magazine, Abel's Photo Weekly, Photo Era, Camera, Camera Work, Camera Craft, American Photography, Photo Miniature, Photographic Times.

INGENTO DEVELOPING TABLETS NOW 25 CENTS.

The constantly increasing demand for Ingento Tablets, has made possible a saving in the cost of production which enables us to reduce the retail price to 25 cents, thus giving the consumer the benefit of the reduced cost of manufacture. Each package contains 24 pairs of tablets, giving a clean, fresh developer for 24 different batches of plates, films and papers. It will be found by comparison that Ingento Tablets are the most economical developer made. A 25 cent package of M. Q. Tablets will make 72 ozs. of developer for plates and films or 48 ozs. for papers. The reduction also applies to Sepaline Tablets, one package of which will tone about 300 4x5 prints. Ingento Tablets are for sale by all photo supply dealers.

* * *

WINDOW TRIMMING CONTEST.

To stimulate interest in show window decoration *The Photographic News* has offered prizes of $50 in gold for the best display of photographic goods made by dealers before December 21, 1912.

The rules are simple. Send a 5x7 picture of the window together with a full description of its contents to the Window Contest Editor, *Photographic News,* 42 E. 23rd St., New York City. The contest is open to all dealers without restrictions. Full details are to be printed in the *News* for October.

* * *

Burke & James, Inc., of Chicago, inform us that they been appointed wholesale distributors for the Edison Home Kinetoscope. It is their intention in handling this article to follow their established policy of not selling to consumers but of doing everything possible to create a demand through dealers in photographic supplies. Our understanding is that these machines are liable to get into the hands of the phonograph dealers unless the photographic supply dealers take immediate advantage of the opportunity of securing the local agency for their community.

The projection business is one more closely related to photographic supplies than to musical instruments. It is a line which cannot but help to increase in volume, and it will therefore be an unquestioned stepping stone to a larger and more profitable business for photographic supply dealers.

Not since the invention of the phonograph has such a step in home entertainment been taken as is represented in the latest invention of Mr. Edison. The Home Kinetoscope is a perfect moving picture machine at a price within the reach of the average American family. The initial cost is practically the only one as the films can be exchanged as often as desired for a nominal sum. The ideal combination of entertainment and education for every member of the family is fully realized in the new Edison machine. Eighty feet of the film used on this machine equals 1,000 feet of that used in the moving picture theatres. This is because there are three rows of pictures on each film which are run off successively. The machine is made to conform to the Edison Laboratory standards and is so simple to operate that a child will find no difficulty in projecting pictures without any possible danger of accident, as the film is absolutely non-inflammable.

The machine is adapted for either electricity or acetylene gas. In addition to the moving pictures it projects a special lantern slide which is about one twentieth the size of the regular slide. There is an immense variety of film subjects and lantern slides to choose from.

Dealers and others interested will do well to apply to Burke & James, Inc., regarding this wonderful instrument.



The Photographic Times

With Which is Combined

ANTHONY'S PHOTOGRAPHIC BULLETIN

SUBSCRIPTION RATES one dollar and fifty cents a year, payable in advance. Foreign Postage 50 cents, Canadian Postage 25 cents. Single copies 15 cents. Subscriptions to the *Photographic Times* received by all dealers in photographic materials in this and foreign countries, also the American News Co. and all its branches.

POSTAGE IS PREPAID by the publishers for all subscriptions in the United States, Hawaiian Islands, Philippine Islands, Guam, Porto Rico, Tutuila, Samoa, Shanghai, Canal Zone, Cuba, and Mexico. For all other Countries in Postal Union, except Canada, add fifty cents for Postage. Canadian postage 25 cents.

CHANGE OF ADDRESS.—When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent one week before the change is to take effect.

DISCONTINUANCES.—If a subscriber wishes his copy of the magazine continued at the expiration of his subscription, notice to that effect should be sent. Otherwise it is assumed that a discontinuance of the subscription is desired.

HOW TO REMIT.—Remittances should be sent by Draft on New York, Express Order, or Money Order, payable to order of *The Photographic Times Publishing Association*. Cash should be sent in registered letter.

CONTRIBUTIONS.—All literary contributions, correspondence, "Queries," etc., should be addressed to *The Editor;* all advertising matter to the Advertising Manager.

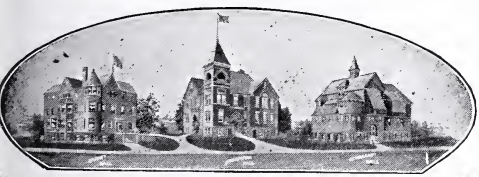
LETTERS should be addressed:

THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION,
135 West 14th Street, New York.

Classified Advertisements

Advertisements for insertion under this heading will be charged for at the rate of 25 cents a line, about eight words to the line. Cash must accompany copy in all cases. Copy for advertisements must be received at office one week in advance of the day of publication, which is the first of each month. Advertisers receive a copy of the journal free to certify the correctness of the insertion.

RATES FOR DISPLAY ADVERTISING SENT ON APPLICATION



Learn a Paying Profession

that assures you a good income and position for life. For 17 years we have successfully taught

PHOTOGRAPHY

Photo-Engraving and Three-Color Work

Our graduates earn from $20 to $50 a week. We assist them to secure these positions. Learn how you can become successful. Terms easy—living inexpensive. Write for Catalogue—NOW.

ILLINOIS COLLEGE OF PHOTOGRAPHY
967 Wabash Avenue, Effingham, Illinois

GOERZ LENSES and CAMERAS

High Grade European and American Outfits a Specialty
Lenses and Cameras Exchanged
ASK FOR UP-TO-DATE BARGAIN LIST
I invite correspondence on anything photographic
BUY FROM A RELIABLE INDEPENDENT DEALER
My name in the photo world is my guarantee

OTTO GOERZ
IMPORT AND EXPORT 501 FIFTH AVE — PHOTO SUPPLIES NEW YORK CITY.

BARTHOLDI'S TRADE SCHOOLS, teach PHOTO-ENGRAVING, PHOTOGRAPHY, COMMERCIAL DESIGNING; (33rd Year). Special Monthly Correspondence Course, $6.00 (Outfit, $6.00). 92 Fifth Ave., New York.

ROCK BOTTOM PRICES

ON CAMERAS, LENSES AND PHOTOGRAPHIC SUPPLIES

Why pay exhorbitant prices for your photographic accessories when you can obtain from us everything you need in your photographic work—whether amateur or professional—at greatly reduced prices.

New BARGAIN LIST just off press. Send for copy to-day

New York Camera Exchange 109 Fulton Street, N. Y.

BEST, EASIEST and CHEAPEST

method of treating prints to

PERMANENTLY PREVENT CURLING

Mailed for 35 cents

Address L. C. BISHOP, 513 Dean Bldg., South Bend, Ind.

Rossbach Art Co.

113 West 23rd St. : : NEW YORK

KODAK Developing, Printing Copying and Enlarging for the Amateur and Trade

Copying of old photographs a specialty

75% Back to You

after you have used the goods 6 MONTHS. Send stamp for

WILLOUGHBY'S

Photo Bargain List explaining.

810 Broadway, New York

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*



REPRODUCTION (REDUCED) FROM PICTURE MADE WITH A $12.00 BROWNIE CAMERA AND A FIFTY CENT KODAK PORTRAIT ATTACHMENT. ORDINARY WINDOW LIGHTING. KODAK FILM, KODAK TANK DEVELOPMENT, VELOX PRINT.

GOOD TIMES AT HOME WITH A KODAK.

Once in a while at this time of year I hear someone say, "Well, Kodak days are almost over," but for me they are just beginning. I believe I really get a great deal more out of my Kodak in winter than in summer, for in summer I use the Kodak to photograph the good times, while in winter, the pictures of the good times and the Kodak really make the best times of all.

It's very much like having an abundance of fruit in the summer, and canning a lot of it to eat during the winter. We enjoy it in the summer, but it always tastes best when it is out of season.

The Kodak, however, is not out of season in the winter; it's only the summer pictures that are, and while you can't make bathing, and camping and tennis and fishing pictures in the winter, you *can* have just as much fun making prints and enlargements from these summer negatives, and you *do* have all the pleasures of Home Portraiture and the Kodaking of the many winter sports to look forward to.

You get closer to your Kodak in winter, because it's the fun of picture making rather than the picture making of fun that you enjoy.

It's good fun to get a few congenial spirits together on a long winter evening, each with a few of his favorite negatives, and make Velox prints or Bromide enlargements. You know it's just as simple to make enlargements at night with the Brownie Enlarging Camera and Illuminator, as it is to make Velox prints, and if larger prints than are possible with the Brownie Enlarging Camera are wanted, a Kodak of the focusing type may be used with the Illuminator for the making of these larger pictures.

However, if you would make the most of the Kodak at home, you must not forget the interest that is attached to picture making of the home folks. Who has seen Grandma asleep in her chair, with a kitten curled up in her lap or at her feet, and not thought, "what a picture that would make?"

We all go to the photographer every so often for photographs, at least we should, and while we cannot expect to do the work it has taken the professional years of study and practice to accomplish, we can add much that has a touch of personal interest to the pictures we have of the folks at home by making those interesting Home Por-

(1)

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

raits that a window, a Kodak, a Portrait Attachment and the lack of self-consciousness, inspired by the home surroundings, make possible.

Pictures like the one we show in our illustration, are easily made by the light of an ordinary window with a Pocket Kodak and a fifty cent Kodak Portrait Attachment.

Our little book "At Home with a Kodak" is profusely illustrated with pictures that not only show how such pictures are made, but show the Kodak results as well. This interesting book is free at the dealers or by mail.

A NEW USE FOR KODAK VELVET GREEN PAPER.

Straight prints from a negative on Kodak Velvet Green Paper are in many instances much more attractive than the black and white print, but the straight print can, many times, be further enhanced by using Velox Water Color Stamps to give a touch of color here and there.

In coloring most any print of a flower or landscape subject, the predominating color should be green, because this is the predominating color of the subject as the eye sees it. In coloring the black and white print more green is used than any other color, but with Kodak Velvet Green, the natural color of the print being a very pleasing green, this color may practically be eliminated and one's entire attention devoted to supplying the proper colors to the flowers, sky, rocks, bark of the trees, &c.

I have before me a picture of a bed of Prickly Pear Cactus plants in bloom, which has been colored in this way and one would almost think the entire print was a piece of expert color work, so faithfully are the green tones of the cactus plants reproduced by the tones of the Velvet Green Paper. Only the flowers in this picture have been given their shades of red and yellow, with a touch of yellowish green to lend contrast by accentuating the highlights placed here and there by the spots of sunlight.

The coloring of prints is very simple with the Velox Water Color Stamps, as is also the manipulation of the Kodak Velvet Green Paper. Velox Water Color Stamps are made in book form, each book containing twelve leaves of color, so perforated that a small stamp of any color may be torn off and placed in a small dish of water, the color quickly dissolving from its paper support. Full instructions accompany each book of these stamps.

With Kodak Velvet Green Paper the exposures are made by daylight and the prints developed and fixed in the regular Velox chemicals.

A NOVEL EXPERIMENT.

Most of us like to experiment occasionally just for the novelty of the thing and while there is an interest attached to the experiment itself, there is a much greater interest if the result of the experiment is a success and we can feel that we have really accomplished something worth while—something of some value to us.

Many photographic experiments are only waste of time but there are those which insure the element of certainty in the result. Take for example the re-developing of a Velox or Bromide print. Most of us have used the re-developing process and know of the excellent results, but there is a very interesting experiment with re-developer which gives more startling and interesting results than would be imagined at first thought.

Local, or brush re-development is the idea and it is not at all difficult, the important point being the selection of a subject which will give a pleasing

effect when a part of the print has been re-developed. The best example I have seen is a print in which the point of greatest interest is a handsome Scotch Collie, in fact we might say it is a portrait of a Collie, for the rest of the picture is of no consequence except that it gives a very pleasing background with good balance. In this picture the dog has been re-developed to a rich brown, the rest of the picture having just a slight tinge of warmth in the shadows and Mr. Collie really looks as though he might step out of the picture at any moment.

Re-developing requires three operations, the bleaching of the print, the re-developing and the washing. Local re-development only requires that the bleaching be done locally as the whole print may go into the re-developing solution and only the parts that have been bleached will be re-developed brown. One of the five cent Velox Re-developer tubes contains all necessary chemicals. Prepare the two solutions, re-developer and bleacher, and with a small camel's hair brush dipped in the bleaching solution, go over the objects you wish to bleach out being careful not to run over the edges with the solution. With several applications all the black will be bleached out, when the print is rinsed and placed in the re-developer. In a few seconds the parts locally treated have turned a rich brown and the print is washed and dried in the usual way.

If the contrast between the brown and black is too great, single objects may be entirely bleached out after which the entire print may be dipped in the bleacher and given only a few seconds bleaching. In this way the black of the background has a slight warmth which makes the result more harmonious. The experiment is not only interesting but the results make it worth trying.

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

Make the most of the home side of photography.

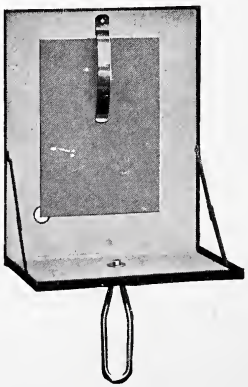
A fifty cent Kodak Portrait Attachment brings home portraiture within reach of your Kodak.



"At Home With the Kodak" explains how. It is beautifully illustrated and is free for the asking, at your dealers or by mail.

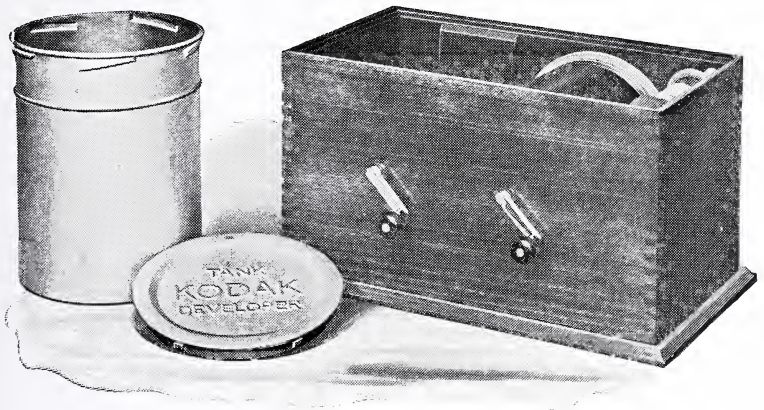
Open the shutter--light the flash-sheet--close the shutter, that's all.

You can make flash-light pictures in the house at night as easily as snap-shots out of doors in sunlight, with Eastman Flash Sheets.



The Eastman Flash Sheet Holder is an innovation. Can be held in the hand or set on a tripod. The sheet lights from the back so the operator is always protected.

"By Flashlight" is an interesting illustrated book on Flashlight Portraiture. It is free at your dealers or by mail.



Double Your Good Times

The pleasure of developing your films the KODAK FILM TANK WAY equals the pleasure of making the pictures.

The results are better too.

The negatives are the clean, crisp kind that make clear, snappy prints possible.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

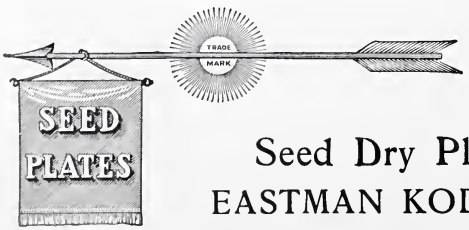
At Your Dealers.

Seed Quality is Printing Quality

You get it in the negative—the proof of it is in the print.

Straight printing is all that is necessary with a SEED negative. All manner of fudging and local manipulation of the print fails to produce this quality from a poor negative.

SEED GILT EDGE 30, unlike other fast plates, combines extreme speed with the delicate tonal qualities of the slower plate. The price is the same as for the SEED GILT EDGE 27.



At Your Dealers

Seed Dry Plate Division,
EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

"BEST PLATES"

mean those that with the highest speed produce negatives of fullest detail, depth, roundness and brilliancy. In other words, "BEST PLATES" mean Hammer Plates every time.

Special Extra Fast (red label) and Extra Fast (blue label) for all 'round work and Hammer's Orthochromatic Plates for color values.



Hammer's little book, "A Short Talk on Negative Making," mailed free

HAMMER DRY-PLATE COMPANY

Ohio Avenue and Miami Street St. Louis, Missouri

Established 1840. Incorporated 1892.

Joseph Parker & Son Company

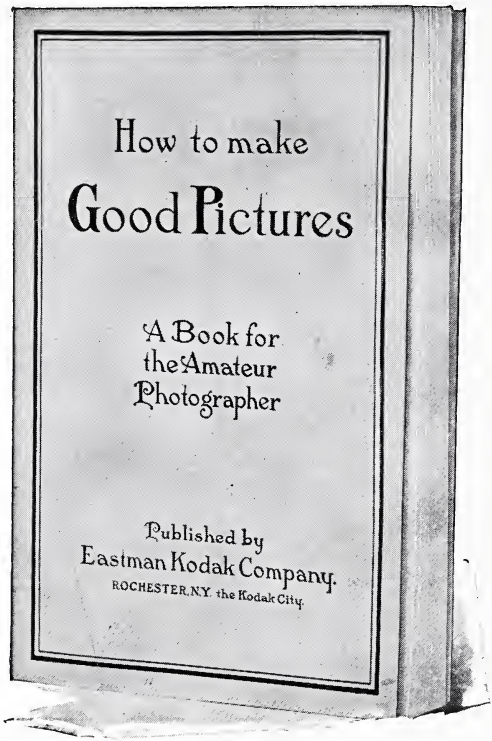
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TREASURY
COMMERCIAL
and CAPITOL

BLOTTING PAPERS

Made in Highest Photo. Finish
and Chemically Pure.

27 Elm Street = = New Haven, Conn.



A Photographic Education

How to Make Good Pictures begins with the selection of the camera, explains the advantages of the various types of lens in a way that is understandable and follows, step by step, the entire process of picture making from the exposure of the film or plate to the various processes of printing. Such subjects as Outdoor Work, Home Portraiture, Flash Light Portraiture, Developing, Printing, Enlarging and Lantern Slide Making are not only thoroughly explained but profusely illustrated with pictures showing the results obtained as well as the methods of procedure.

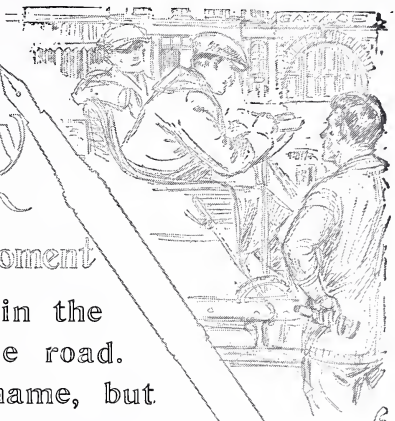
All processes are reduced to the simplest form consistent with good results, making 160 pages of the real meat of the subjects treated. The large editions of this book have made possible its nominal price.

How to Make Good Pictures, . . $ .25

At Your Dealers.

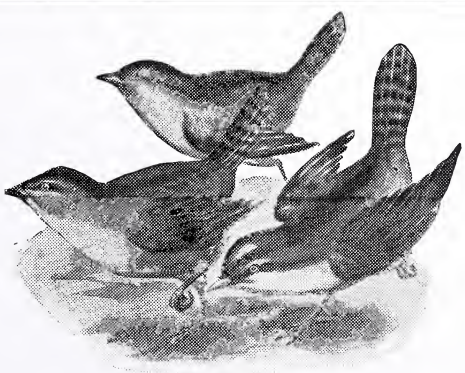


The Dainty
The Pen
for the
Spur of the Moment



whether it be in the
office or on the road.
DAINTY as its name, but
strong, durable, and convenient.
Inlaid pearl, with chased gold bands.
Sent post paid on receipt of price.
Price, $2.50.

STYLES & CASH, 135 W. 14th St. NEW YORK



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LINTLESS PHOTO BLOTTING, C. P., DOUBLE HARD
WRENN'S
BEST BLOTTING
HIGHLY ABSORBENT CHEMICALLY PURE

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IN WHITE AND COLORS

WHITING PAPER CO.

54-56 Franklin Street . . New York

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DO YOU USE

"World" Blotting

THE ORIGINAL PHOTO-FINISH

IT IS ABSOLUTELY THE PUREST AND
BEST FROM BEGINNING TO END

If you don't want your Prints to Lint and Stain, you must use
"PHOTO-FINISH WORLD"

IT IS MADE BY

The Albemarle Paper Manufacturing Co.

RICHMOND, VIRGINIA, U. S. A.

For Sale by all Leading Dealers

As Days Shorten, Exposures Lengthen

unless **CRAMER CROWN PLATES** are used

CRAMER'S Special Sulphite and Carbonate

Sold Seven Years. Tons used each year, and not ONE Complaint

G. CRAMER DRY PLATE COMPANY - St. Louis, Mo.

Hurd's Lawn Finish is the finest type of the fashionable fabric papers. Its quality is the best; it is beautiful in appearance, and the writing surface is exceptionally pleasing.

Hurd's Suede Finish represents the best quality in the medium smooth finish, and is much in fashion. It is also the finest wedding paper made. We carry a large stock of these fine papers.

STYLES & CASH,
135 West Fourteenth Street,
New York.

WRIGHT : PHOTO SUPPLIES : Racine, Wis.

We make real photo Post Cards from your own negatives or films at—$10.00 per 1000 —$6.25 for 500—$2.00 for 100. From one negative :: :: :: :: :: :: ::
Get our complete price list for other quantities
We use both Cyko and Argo for this work
We make enlargements, all sizes :: :: ::
8 x 10, Post Paid, best quality paper, 45c.
We do developing and printing for amateur photographers, and do it right :: :: ::
Get our price lists
Large discounts on Korona & Seneca cameras

WRIGHT : PHOTO SUPPLIES : Racine, Wis.

A Complete Course of Practical Instruction in Posing.

Composition in Portraiture

By SADAKICHI HARTMANN

The only book on Posing in the English language. Written for Photographers by a man who understands photography. A book that tells you How to Pose Your Subject correctly and artistically.

There are over 137 Illustrations. Every one teaches a lesson and is referred to in the text. The diagrams show you how to place your subject. Heads, busts, three-quarter, full length, single figures, large and small groups.

137 Illustrations on India Tint Plate Paper and numerous diagrams. 116 pages. Cloth bound. Designed cover in 3 colors. Gilt top. 6x9.

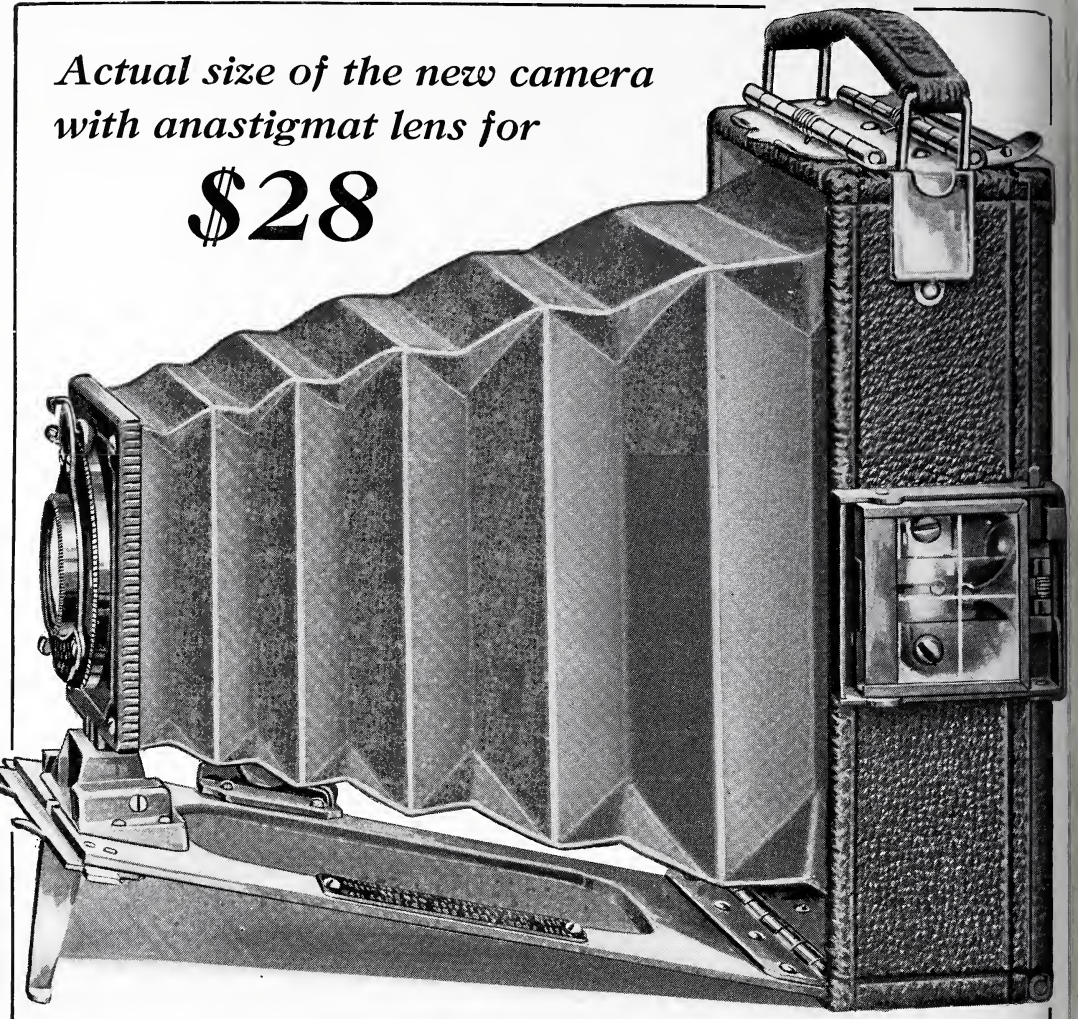
The subject is treated entirely from a photographic point of view.

PRICE **$3.00** POSTPAID.

THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION
135 West Fourteenth Street, New York

Actual size of the new camera with anastigmat lens for

$28



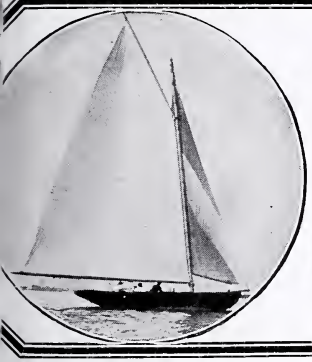
Premoette Jr. Special

A marvelously compact camera, suited for work of the highest grade. Fitted with Zeiss Kodak Anastigmat lens—the anastigmat made expressly for hand camera work, combining speed, depth and definition in a remarkable degree.

The shutter is the Kodak Ball Bearing, the finder is a direct view, the pictures are 2¼ x 3¼ in size, and their quality is as good as can be had with any size camera at any price. The camera is richly finished with genuine Persian Morocco covering, black bellows and nickeled fittings. It is the finest, most efficient, handsomest small camera you ever saw.

Complete description with many other Premos in the Premo Summer Book, which may be had free at the dealer's or direct from us.

Rochester Optical Division, Eastman Kodak Company, **Rochester, N. Y.**



COOKE-TELAR



Cooke-Telar lenses magnify distant objects. You merely unscrew your lens and insert the Cooke-Telar. From the same position you then secure a picture just twice the size given by the ordinary lens, yet with the same length of camera bellows; and you get a well timed negative even with the fastest speed of your shutter. Write today for catalog explaining "Depth of focus" and other questions.

The TAYLOR-HOBSON CO., 1135 Broadway, New York

Pictures Mounted With

HIGGINS' PHOTO MOUNTER



Have an excellence peculiarly their own. The best results are only produced by the best methods and means—the best results in Photograph, Poster, and other mounting can only be attained by using the best mounting paste—

HIGGINS' PHOTO MOUNTER

(Excellent novel brush with each jar.)

At Dealers in Photo Supplies, Artists' Materials, and Stationery. A 3-oz. jar prepaid by mail for thirty cents, or circulars free, from

CHAS. M. HIGGINS & CO. NEW YORK CHICAGO LONDON

MANUFACTURERS

Main Office, 271 Ninth Street, Factory, 240-244 Eighth St., BROOKLYN, N. Y., U. S. A.

F. W. ANDERSON & CO.

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34 Beekman St., TELEPHONES: { 4760 / 4761 } BEEKMAN **New York.**

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Made in Flat Papers, Typewriter Papers, and Envelopes

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Writing and Cover Papers in all Qualities "GREYLOCK LINEN LEDGER"

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Crane & Company's Celebrated Bond and Parchment Papers
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Crane Brothers "Gold Medal" Linen Ledger



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with quality—every pound of printing ink that leaves our establishment: mixed with quality of materials and brains, too. The kind of ink that lessens the worry of the man at the desk—the superintendent—the foreman—and the pressman. We never knew how to make any other kind of ink.

If Sinclair & Valentine Co.'s label is on the can, the contents will please your man.

Send us your order for any special inks—no matter what shades or for what processes—we will guarantee to make them right—*and*—make them satisfactorily.

Tell us your ink troubles and we will disperse them.

SINCLAIR & VALENTINE CO.

Main Office and Factory: 605-611 West 129th Street, New York.
Down-town Branch: No. 168 Centre Street, N. Y.

Philadelphia Boston Chicago St. Louis Cleveland
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COAT POCKET TENAX

GOERZ VEST POCKET TENAX, $1\frac{3}{4}$ x $2\frac{5}{16}$
GOERZ COAT POCKET TENAX, $2\frac{1}{2}$ x $3\frac{1}{2}$

Cameras which you can take with you, ready to seize every opportunity, on a thousand occasions when ordinary hand cameras must be left at home. Fitted with direct view finders, accurate focusing adjustments, and compound shutters giving a maximum speed of 1/250 of a second. The last word in pocket camera construction.

The **GOERZ ANGO,** four sizes, and **FOLDING REFLEX,** 4 x 5, both with improved **focal plane shutters,** should interest all ambitious amateurs. The **GOERZ MANUFOC TENAX** is the strongest adjustable bellows camera on the market.

C.P. Goerz American Optical Co.

317 East 34th Street, New York

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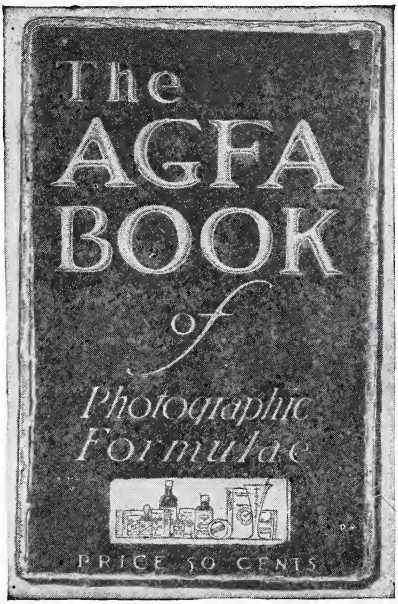
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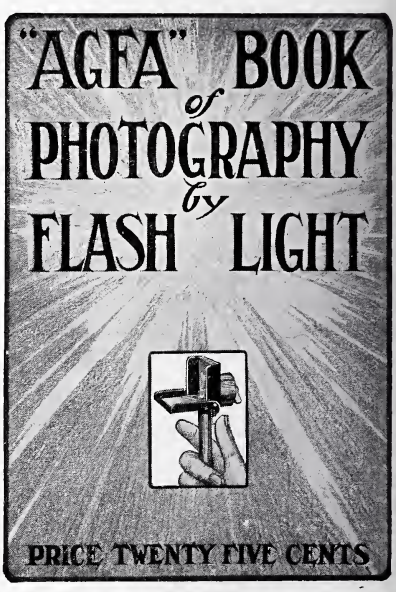
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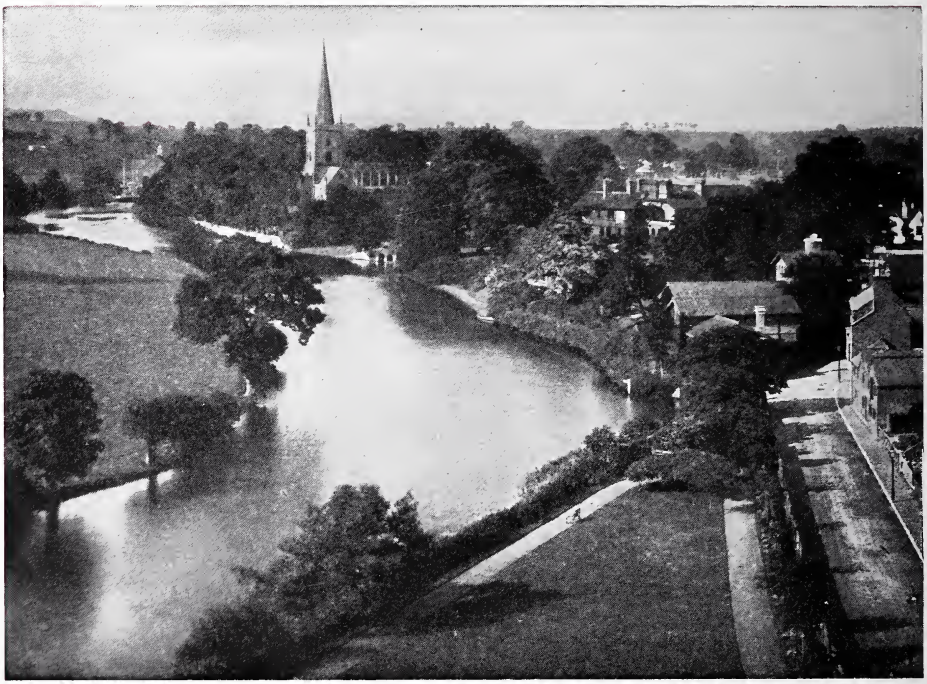
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VOLUME XLIV NOVEMBER, 1912 NUMBER 11

PHOTOGRAPHING FOOTBALL

BY C. H. CLAUDY.



ALMOST as fascinating as the game itself, photographing a football game offers to the speed worker a wealth of opportunity for getting action pictures full of movement, speed, excitement and interest.

The sport is of the more interest to the expert speed worker because it is, all things considered, about the most difficult of which to get really good photographs.

There are several reasons for this. In the first place, the majority of football games take place late in the afternoon, and at a time of the year when the light is none too good actinicly and very frequently not at all good meteorologically, if there is such a word! —in common or garden language, the sky is often overcast, and the atmosphere foggy during November.

This matter of little light of poor quality imposes the first restriction on him who would picture football with the camera—he must have a fast lens and shutter capable of making the most of it, or he might as well stay home.

Football, unlike baseball and many other outdoor games, roams all over the lot. You are never sure where the players are going to be from one minute to another. In baseball you know all the photographable plays are going to "come off" at one of three bases, two of which you can get close to and fix your self and camera in position—I have known of good baseball pictures being made with a stand camera! In tennis, while players and ball move swiftly about the court, the court is restricted in size and one can "set" himself for a picture at a certain place and be reasonably sure of getting it.

But football is a different proposition. The field is very large and an end run or a successful break through the line may transfer the whole game a long distance from where you are, and it may be an hour getting back again.



AROUND THE END *C. H. Claudy*

The uninitiated might wonder why you can't follow the game—those who have tried this know that, as a general rule, officials and players look with small favor on the man with the camera, who wants to get out on the field and follow the game. Indeed, it is not a matter for wonderment, for even a photographer with a knowledge of football can't tell in advance whether an end run is coming his way or the other way, and no one wants to try a play like that with a twelfth man to run over and get rid of! So photographing football from the side lines is the usual opportunity afforded the searcher after pictures, and to scamper wildly down the side lines after a runner with the ball, only to find that the other fellow got it on a fumble following a tackle and punted it some fifty yards back again, does not give you any great encouragement for this following-the-game idea!

But when all is said and done, photographing under difficulties is the best of photographic sport. Making a perfectly easy picture which any one with a month's practice could make as well, loses its attractions after you have some degree of real skill with lens and shutter. So, perhaps, these difficulties of photographing a football game but add to its attractions.

In the matter of lens and shutter, it can be said that there is no such thing as a lens too fast for this work—F 4.5—about the fastest obtainable for outdoor work—is what is wanted, although F 5 and F5.6 will do the work. It is necessary to have so fast a lens, not only account of the poor light, but because of the character of the action, which may include forty-four flying feet! And the feet of a runner are so very fast in their move-



BREAKING THROUGH *C. H. Claudy*

ments that unless you use a very fast exposure, you are bound to get a disconcerting blur at the end of divers and sundry legs, which make the players look as if shod with rolls of cloth!

It is obviously impossible to state with any degree of accuracy what exposure you must give. I have run up to the 500th of a second and found it too little, and the other way to a 100th, on a play like a kick off, when I was some distance away and with the motion quartering my line of sight, or on a free kick with the picture made from behind the goal, or on a scrimmage close to the posts when it was fairly certain that a center rush would be the play and the resistance to it such that motion was more potential than actual. As a general rule exposures will run about the 300th of a second with a focal plane, if your lens will stand for it—and, believe me, you will want the fastest plate you can purchase and to know your business, if you will get a clear, good picture with these exposures, on a dark day, late in the afternoon.

To aid your instrument as much as you can, get low and thus secure a light background of sky for your flying figures—when the light is dim you can thus add some contrast to what might otherwise be a very flat picture indeed. And, of course, if your tastes lie that way, there is one way to cut the Gordian knot of exposure and that is by the use of so small an instrument with so short focus a lens that a very slow exposure will suffice to stop the motion. I am supposing in this article that you use a plate at least 4 x 5 in size, if not 5 x 7.

With the experience behind you which should qualify you for making good football pictures—that is, with other speed work successfully done,



END RUN AND NO GAIN *C. H. Claudy*

you will not need to be told that motion to or from you is easier to picture than motion across your line of sight. The exposure can be longer and thus more likely to be ample, without losing a certain amount of crispness of definition which is necessary properly to represent the game. Of course, you can't always tell what way the motion is going to go, but it is fairly certain that the next play after an out-of-bounds ball is brought back will be towards the center of the field and thus either away from or towards you. Similarly, you can often tell—if you have any knowledge of the game—from the score, the number of downs, the policy of the players and the time remaining, when a kick is likely to occur, and if you happen to be properly placed, can get that most stunning of all football pictures—a free catch with tacklers ready to dive with the least motion of the player who caught the ball. I speak of this as the most stunning of pictures—I do not know but what that description belongs to the flying tackle of the runner, only such pictures are matter of pure luck in being at the right place at the right time and are thus seldom made.

As a matter of actual fact, picturing football is much better done—and (a secret?) much more often done during practice than during the game. I do not now speak of great college games, which are photographed honestly enough *in situ*, but of the pictures made to illustrate certain plays and of the average photographic football fan's collection. For, if you know players or manager, it is not so difficult to get permission to be on the field during practice scrimmages, when you can maneuver about to your heart's



A FORWARD PASS *C. H. Claudy*

content, and if you happen to get in the way there will be no hard feelings unless they are yours where you happen to strike if you are upset by getting in the way of a rush! Not only for ease in getting around and picking your view points, but for the sake of the light it is better to make such views during practice or scrub games when possible, and if you can get a chance to photograph such play before two or three o'clock on a bright afternoon, at least one-half of your troubles has disappeared.

In getting on the field, and among the players, excellent action pictures can be secured if you can get some notion of what the signals are—or, if this usually jealously guarded secret cannot be penetrated, ask the quarterback to make some special play for your benefit. Thus, if you are behind and to the right, ask him to send the right half through tackle, two or three times, and you may get a series of pictures showing, say, first the snap back, second, the ball being passed to the half, and third, his plunge into what should be the waiting "hole," torn by tackle and guard for his plunge.

If you have your nerve with you, get out in front of a team going through signal drill and make a picture right in front of the line of battle. It won't be a football *game* picture, but it will have a lot of action to it. It is not unusual to see, during practice, a guard or tackle or center sent in to oppose a whole team—alone! Not with any idea on the coach's part that he can stop the team, but that he may get practice at certain things while instructor or coach gets an unobstructed view of what he does. This, if you can get close to it, makes a first-class picture, and is about the only way in which the play of guard against guard or center against center can be pictured, as with two teams lined up, there are too many arms and legs in the way.

Pictures of kicks are always interesting, and these may be "posed" if you can call a real action picture posed, without any trouble. Get the kicker of drops to make half a dozen for you and try to get a series—it is worth making. Get him as he stops his running and lets go the ball—get him as the ball strikes the ground and his foot is a foot away from it—get him (if you can) as foot mets ball, and one more, as foot follows through. Place kicks, punts and field goal kicks are all good subjects for the football photographer, but the latter is rather difficult of getting unless it, too, be posed.

Otherwise, taking football pictures is much like taking any other picture of action—you must be quick to focus, quick to make up your mind and quick to press button or bulb, when the time is ripe. Of course, a Graflex is far and away the best instrument for this (or any other) variety of speed work, in my opinion, and the pictures which are shown herewith are all made with that instrument. Scale focusing instruments do not permit the use of extremely fast lenses with successful results, and stand cameras are utterly impossible. Moreover, it is useful to be able to change from short to long focus lens in a hurry, and the Graflex, which allows you to see that focus is correct instantly after the change, makes long focus lens work a pleasure, even under the exciting and difficult conditions which obtain when following the elusive spheroid and the charging line.



AN OPEN SCRIMMAGE *C. H. Claudy*

A SIDE LINE AND A LIVING ADVERTISEMENT FOR THE STUDIO

A "Practical" Article for the Professional.

BY L. C. BISHOP.



WADING

I AM writing this article while I have in mind a demonstration of the vital importance of doing work well.

In photography we have the slipshod workman as well as in other lines, and while he always seems to get a part of the patronage, we usually find him living in close harmony with his product.

Now I am not going to say very much about the photographer who puts his work out in a tasteless, careless manner, the kind who says customers don't appreciate the difference, they soon throw the picture aside. But, the kind of man we all are interested in is the one who carefully considers and studies his work and does it in good taste. He is a success financially, because, by having well arranged workrooms and modern business system the various processes can be so conveniently carried on that his productions may be sold at paying prices without being prohibitive to the classes catered to. The finished prints suggest the best that material and subject are capable of.

Last year I met a progressive young photographer at a summer resort where he was doing a fine business in local landscapes, marines and character prints. They were exquisitely done and he sold them at prices so low that even the amateur photographer could better afford to buy than to use their own material.

These pictures were, in style, sheet prints, with white margin, size 7 x 9; price, for black and white, 20 cents each, and sepia 25 cents.

J. B. knew the secrets of selling his product, that is to have his prints in a most desirable style, of interesting subjects taken under particularly suitable conditions of lighting to render them most attractive and beautiful in tone and to use a lens designed for pictorial photography.

He took great pains in securing these subjects and also in making the negatives which he worked up as carefully as he would a fine portrait. The picture part proper was about 5 x 7, as a rule, though they were taken on 8 x 10 plates. Around the edge of the picture portion was etched a narrow dark line, a little less than 1/16 of an inch in width. The margin part was covered with opaque except where the title of the picture had been etched through the opaque and partially through the film.



CHICKS *D. F. de la Peña*

When a print comes from the negative it appears with a narrow dark line around the picture and underneath, or below, the title in a plain white margin. The print is complete with one impression except the photographer's name which he writes in lead pencil. The printing medium was dull, rough, double weight D.O.P. The sepias were very pretty as they were toned in hypo alum bath, which generally gives a more agreeable tone than the ordinary re-development process.

You may wonder how it could be profitable to go to all this trouble at a low selling price, but the increased sales more than offset this. Often a customer will take six to twelve and more of the different subjects and as they are worth framing, will advertise and bring customers for other branches of work done by the studio.

In printing, to replenish stock on hand, which is about 1,000 prints, the darker ones are sorted out for sepia and should any be a trifle light they are saved for hand coloring. There is very little waste and when one realizes how many people will buy desirable prints when the price is only 20 or 25 cents, it will be understood how J. B. keeps himself and assistants busy the year around.

In the city where the regular studio is conducted, the scheme is carried out by placing albums of choice prints in the various reading rooms, such as the Y. M. C. A., Y. W. C. A., and smaller hotels. Among the subjects are also street scenes, historical buildings, school buildings, nearby park scenes, etc. At the bottom of each page in the album is printed in small, but distinct type,



PORTRAIT OF MISS N. *L. C. Bishop*

"Original prints in stock at 20 cents and 25 cents each. J. B. studio, (street address.)"

Out of the summer season there are special times in the city when these prints find ready sale, Christmas and New Year's and Valentine day. Shortly before these days a display is placed in the studio window, with a neat card written so as to call attention to the prints as appropriate gifts. These go broadcast and cannot help but advertise the studio, bringing customers who will sit for portraits, where otherwise they would not have their attention drawn to this particular photographer.

J. B. has over 300 beautifully done negatives, all worked up and ready for orders. On some of the plates there has been considerable work, such as reducing, intensifying, etching out undesirable detail, working in, etc. Possibly not only a few, but many of them required as much as $10 worth of time to get and prepare for printing—nevertheless all this comes back in good returns. He has won prizes as high as $25 by submitting prints in contests and every now and then prints are sent out to publishers, who are in the market for pictures or photographs. Publishers usually pay from $2.00 to $5.00 per print, if acceptable, and on one occasion $50 worth were taken by one of them. The sale of such prints to publishers does not harm the local sale and the prices they pay help considerably to reduce the original outlay.

In closing this article, I will add a few words about J. B.'s outfit and about how he works. The camera is 8 x 10, with which he has four lenses of different focus and character. An eighteen inch soft working, single achromat at *f*8, a thirteen inch focus anastigmat at *f*6.8, an old rapid rectilinear ten inch focus at *f*8, and a wide angle six and a half inch focus at *f*12.5. There are filters for the larger lenses. This may seem to be quite an outlay for lenses though in this case they are not extravagant as they can all be used in the regular work of an average studio. Their cost to the owner was approximately $35 for the single achromat, $50 for the anastigmat, $12 for a second hand rapid rectilinear, $24 for the wide angle. The plates used were of American make such as the more rapid type of the orthochromatic, also ordinary very rapid plates which were given quite full exposure and then restrained in development, beginning development always, in a restrained solution and if the exposure appeared to be a bit under the estimate the plate is immediately transferred to a secondary tray containing unrestrained developer.

The characteristic negative was thin, but firm, and of a warm tone—a crisp printer.



THE RECOVERY OF SILVER FROM PHOTOGRAPHER'S SOLUTION

BY SAMUEL WEIN.



THE largest use of silver at the present day is in photography. It is natural that a considerable amount should find its way into silver refining and sweeps trade. It may be said, however, that a smaller percentage is obtained from photographers than should be produced for the reason that many photographers make no attempt to save their solutions, but throw them away regularly. This fact is quite true of a large percentage of those who work with dry plates and films, and especially those who do developing for the amateur trade, as they are not familiar with the method of saving the silver or disposing of it after saving it. With the old wet plate process, photographers were compelled to save their silver wastes, for the reason that it amounted to a very large quantity and was of a character that could readily be reclaimed. The wet plate process is used only to a limited extent and is almost confined to the photo-engraver's trade, practically every professional photographer now employs the dry plates which have, as every one knows, been the cause of the present popularity and enormous growth of both professional and amateur photography. Had it not been for the advent of dry plates, the art of photography would never have been what it is today.

The methods for recovering the silver from photographer's solutions herein given apply only to dry plate work, as the wet plate process is used so rarely that it is unnecessary to consider it as a factor in the matter of silver saving when carried out according to the method herewith described.

"HYPO" SOLUTIONS THE ONLY ONES WORTH SAVING.

The modern photographer, who uses dry plates, has quite a number of solutions, but the principal ones are the two following:

1. The developer.
2. The fixing solutions.

The other solutions are of little importance as they are seldom used and contain no silver. These solutions are generally employed for reduction or intensification of the silver image on the plate and cannot be considered.

The developer is the solution used to bring up the image upon the exposed dry plate and contains no silver when fresh and unused. After using, it contains traces of silver, but not of sufficient quantity to warrant saving. The developer, therefore, is of no value and should not be saved.



THE BACK PASTURE *W. I. Lincoln Adams*

After the developer has brought out the image on the dry plate, there still remains the bromide of silver that has not been acted upon by the light during the exposure of the plate through the lens in the camera. The portions of the plate that have been acted upon by the light are reduced by the developer and are converted into metallic silver, which constitutes the image. The portions unacted upon by the light are not reduced by the developer and thus remain as bromide of silver.

When the developing process is completed, the dry plate must be "fixed" and this consists of soaking it in a solution of hyposulphite of soda or as it is usually called "hypo." This material has the property of dissolving the bromide of silver, but does not dissolve the black metallic silver formed as the image by the developer. In this manner, therefore, all the silver unacted upon by the light, and which is in the form of bromide of silver is dissolved from the plate, "hypo" leaving the black, reduced silver comprising the image. untouched. The plate, of course, is coated with gelatine for the purpose of holding the silver compound used on it in place; through the various operations of developing and fixing, this gelatine remains on the surface of the glass. A glass negative, therefore, that has been developed and fixed, as well as washed and dried, contains the image in the form of finely silver imbedded in the gelatine.

The "fixing solution" or that used to dissolve the unacted-upon bromide of silver from the plate, is the only one that contains sufficient silver to be worth saving. This fact should be impressed upon photographers, many of whom save all solutions, so that only the fixing bath will be retained. If this is done, the operations are somewhat simplified.

WHAT THE "HYPO" SOLUTION IS.

The so-called "hypo" solution, used for dissolving the bromide of silver

on the dry plate that has been unacted upon by the light, consists of a nearly saturated solution of hyposulphite of soda (sodium thiosulphate) in water. It is frequently used alone, but more often contains alum. The alum is used in connection with it to harden the gelatine on the glass and prevent it frilling at the edges. The use of alum is now extensive and nearly all photographers employ it. In addition to the alum (either ordinary alum or chrome alum may be used) small quantities of acetic acid, sulphuric acid, sulphate of soda, oxalic acid or other weak acids are employed to render the solution slightly acid. The principal ingredient, however, is the hyposulphite of soda, and it is this substance which dissolves the bromide of silver.

It is customary for photographers to use their "hypo" solutions until nearly "exhausted," so to speak, or until it works slowly. They are then discarded and a new one made up.

RECOVERING THE SILVER FROM THE HYPO SOLUTION.

As the "hypo" solution is the only one used by photographers, which contains sufficient silver to pay for treatment, it is upon this, therefore, that we must concentrate our attention. The removal of the silver is simple.

The first thing to do is to render the "hypo" solution slightly alkaline by the addition of a little carbonate of soda solution. Add just enough to make slightly alkaline. In other words, red litmus paper should turn blue when wet with it.

Now add a little solution of liver of sulphur in water to this "hypo" solution and allow it to stand in a warm place for a short time. The liver of sulphur will precipitate immediately, but takes a few minutes to form, and if warmed the formation takes place more rapidly. Its formation can be seen by the presence of black flocks of sulphide of silver, which settle down to the bottom of the vessel. When the top of the solution is clear, add some more of liver of sulphur solution and see if a sufficient quantity has been added to precipitate all the silver. If not, add more. The idea is to avoid adding too large an excess of the liver of sulphur, although a moderate excess is not harmful.

When enough liver of sulphur has been added to precipitate or "throw down" all of the silver in the "hypo" solution, the whole should be allowed to stand in a warm place for about an hour, to give it an opportunity to settle. At the end of this time, the black sulphide of silver will be found on the bottom of the vessel. The clear solution at the top should be tested with liver of sulphur to make sure there is no silver left, and if this is the case it may be siphoned off and thrown away.

The sulphide of silver on the bottom should be washed with water, by stirring up with clear water and then allowed to settle. The clear liquid is again siphoned or poured off and the washing operation repeated. This may be carried on several times, and the whole poured onto a filter paper in a large glass funnel and the silver sulphide filtered out. While on the filter it should be washed several times with clean water.

If everything has been done well, there is obtained a mass of fairly pure

sulphide of silver in the moist state. This should be dried. Pure sulphide of silver contains 87.09% of metallic silver.

If one desires to reduce this to metallic silver, the best way is to dissolve it in diluted nitric acid, filter off the sulphur that separates, and precipitate the metallic silver by means of copper, sheet or wire. Such a procedure, however, is not advisable as the sulphide of silver is always salable and is readily purchased by silver smelters and refiners. They do not, however, as a rule, like to purchase the hypo solution for the reason that it usually does not contain sufficient silver to pay the transportation charges to any distance. By precipitating the silver in the manner described, therefore, the silver sulphide obtained, even when wet, is so rich that it will pay transportation to a long distance. The operation of precipitating is so simple that photographers can do it at frequent intervals and gradually accumulate the sulphide of silver so that, when it has reached a sufficient amount, it can be sold to silver smelters. Or, if it is not desired to sell it, the silver can be reduced as previously mentioned. It will, it is believed, be found preferable to sell the sulphide of silver for the reason that there is no use for either metallic silver or nitrate of silver in the photographic studio when dry plates are employed.



RYMER'S GLEN, MELROSE, SCOTLAND *Edward Lumsden-Brown*

A LITTLE START

Part Second.

BY J. LIPPINCOTT FOSTER.



AND my outfit was a lot different from the regulation catalogue outfit, for instance it had a hard rubber plate to squeegee negatives on and a big squeegee to do it with. I opened the package after dinner and gloated rapturously over every little thing in it, and more yet as the dear little ruby lantern came into my hands. If I could only have foreknown the smelly hell that thing was to be to me as the years went by, because I hadn't strength of mind enough to abandon it and get something big and grand for a ruby light, I would have thrown it away before beginning operations. But I couldn't know, so I smiled at it and smiled at it, filled it with oil, and covered the ruby front with a ground glass and orange glass to make the light safer. I had been reading a lot of safe lights, and from what I could gather this was the way. It proved safe with me.

As I loved things that would go, I wanted to see if there was any go to the negative paper, so I opened the package and cut off a small piece by the light of the ruby. Then relighting the big oil lamp, I looked at it. The film side was easily to be distinguished, and its sweetly smoothed surface seemed capable of holding elegant pictures I thought as I gloated a bit and laid hands on the little two ounce amber bottle of developer that seemed to my trusting mind as if it was full of imprisoned wonders and would last forever. A fit prelude to the gallons on gallons of different developer I brewed without end in future year, the busy photo aftertime.

Uncorking it, a little spill of clean paper was inserted into it, and a line drawn across a sheet of note paper. "Nothing doing." Then it was drawn across the negative paper which as it had been lying beneath the lamp had some exposure.

A deep brown line followed in the wake of the spill, flashing up immediately. The sight was intrancing! "Hooray! this thing was going to work for me sure as you were born," I thought, and I went happily to bed. What need of drinking intoxicating liquors or frequenting roof gardens, when such joy as this may be had, and it comes cheaper, too.

The next happy day was to see it put to the proof. The room was made perfectly dark by an inside shutter to each window that was light-tight and no guess work. In the darkroom by the ruby light I cut the paper to fit, and tacked it on the lid at each corner with tiny phosphor-bronze tacks, then slid the lid in the groove of the box. A part of the felt paper covering of the box was left loose like a flap, and turned over where the groove opening was, and when



THE WOODS IN WINTER *Harry A. Brodine*

the box lid plateholder was slid down into position, this flap turned down on the end of it, and a heavy rubber-band held it in place, also, I was careful to see that the shutter was closed before venturing forth. Of course the lens had a stop, which "I thought" was the right size, and set at the right distance from the lens. I was right about it, with that lens it was impossible to make a mistake. When I stepped into the bright daylighted other room, I felt as if I was the conqueror of a rainbow or something like that and held it safe in the box.

One of the two windows of this room looked out over a valley, a wonderful distance could be seen over that charming vale, even to the far horizon. It looked good as a subject then, but it was about as poor a selection for a first trial as could be made, there were no large forms, all petty detail. But the camera was pointed to it. I never then nor after worried a little bit of anything whatever about the time, but from the very beginning of things, I seemed to sense the strength of the light and the speed of the plate correctly in almost all instances.

I exposed. I carried the box into the darkroom, made up the developer, opened the camera, drew out the lid, pulled out the tacks, put the paper in the tray, flooded it with water, when flat poured off, and covered with developer by the ruby glow, then rocked the tray and watched. Nothing showed for a second or two. "Here, oh! here does come something," said I as a part of it began to blacken and blackened some more. Mightily pleased was I at this showing as promising to crown my labors with success. "Well! well!" I thought, "we and the camera certainly did something to it; let's watch." Then I watched but when the entire negative began to get black, I considered it was going to spoil so poured off, rinsed, and put in the hypo, from whence after rinsing I carried the dripping paper to the light of the other room.

I never was a yowler, or I would have given three considerable consecutive whoops when I looked through that, my first of all negative, to the light. It was very thin, but the valley was there. After a lot of thought I believed I had got scared too easily, and that the negative wasn't nearly cooked in the developer. The lens was a wonder! everything close up and horizon far was equally in focus. Sharp at the end of the nose and thirty miles away.

I rang at the door bell. "Marie, is Mrs. ——— at home?" "Yes! but she not can see you."

"And why not?"

"It is not the hour."

It's the hour for me, the light is good." Marie shook her head. No understandy." "But we sweep."

"Then sweep in and tell her I'm here on business that can't wait."

Looking past the shocked Marie I am conscious of a movement in the darkness of the cavernous hallway behind her, then something comes to us from its depths. Clarice! Attracted by the controversy she had come forward to clear away the intruder with the sweep of her eyes in one motion as one would bat a bug with a stick.

I note the fire die down in the lambent depths of darksome orbs as she recognized me, and dismissed Marie with a hand motion, then in a tone of surprised severity: "Jim! what do you want here at this time of day." I said in a tone of one conferring a great favor, "I came to take your photograph, and now, because the light is good!" But only if I could have caught the light of amusement in eyes that danced between the sweep of the lashes. But only if I could have caught the laugh that rippled over every sweet feature, turning the bow of the mouth upward, revealing just the tips of the rows of pearly teeth. But only—but pshaw!

"Well come in and I will go change my dress and touch my hair."

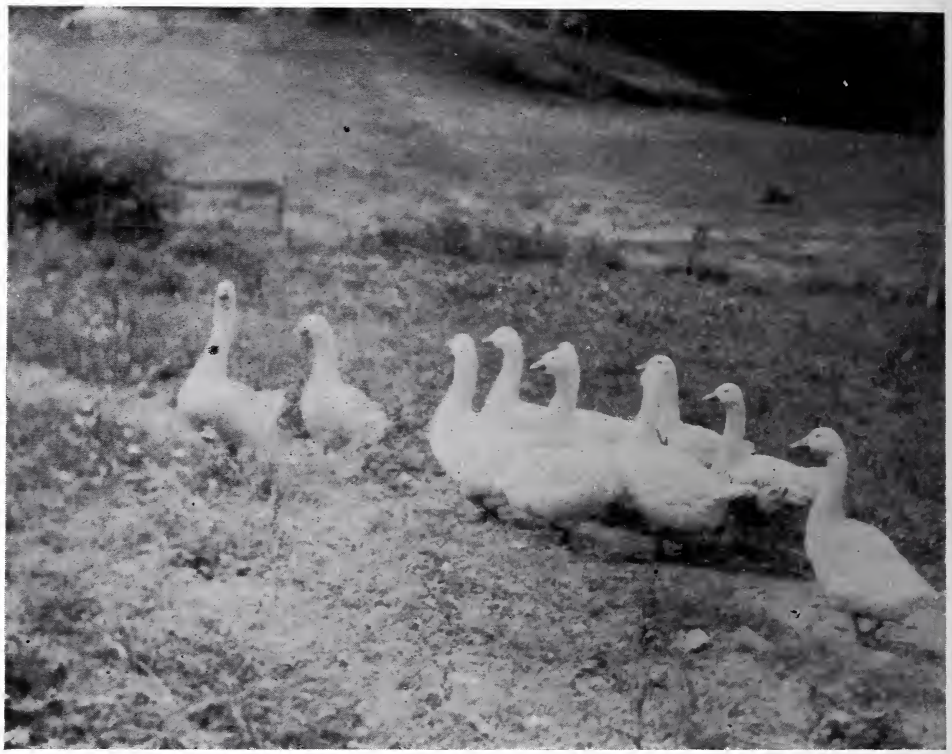
"Change and touch nothing; you are too elegant as you are.'

"In this thing?" indicating a black and white wide blazer-stripe house dress that would have looked awful on any one else, but for her it is just chic. "In that thing."

"I will sit at the piano then and we will call it, 'A moment's relaxation from toil, or the missus takes a rest.'" Again I longed to catch the fleeting expression of amusement her face showed when she saw "me box."

"Do you expect to get me into that tiny little thing? Which end do I go in at?"

Steeling my heart against the slurs cast at "me box," "me apparatus," I bring up a big chair to the "I thought" proper distance pile on books until the height looked right and level, pointed the camera at the piano, raised the shades of the front windows to the highest notch—big porch in front—removed the music from the rack—the subject in my mind was l'Improvisatore—brought the grand-shaded piano-lamp in for accessory, and remarked: "You will have to keep still for about five minutes; do you think that is possible for you?" A slight movement of the shoulders showed the inward scorn, but she would say nothing now she was playing for expression.



A STRANGER IN OUR MIDST — *Harry D. Williar*

Five minutes! and the pose she had selected left one hand poised, the finger only touching the keys. I glanced along the right hand edge of the box aiming at one side of and above the center of the composition of the desired picture, a three-quarter length. There was no ground glass for focusing, because the box-lid plateholder, loaded with its little dinky piece of paper, was in place, but I estimated by my practice with numerous little negatives, that the figure would project the right size. And to be in center, it seemed a sure thing to me as I aimed: This was nothing to dropping the whizzing duck at the extreme limit of range in a dusk too deep to distinguish the muzzle of the gun.

"I will take a seat where I can't see you," I said as I uncovered the lens, then with watch in hand I effaced myself to sight and sound and left her to her misery.

That five minutes seemed long to me, but I never relieved her until the last second was gone. Never! she was too proud to allow me to see any sign of strain by her movements when she got up from her seat at the end of the sitting and when I took leave. I misdoubted if the look in her eyes meant, I might try for a kiss, or would have the dog on me before I could get through the gate.

It may be thought that the description of this sitting was only undertaken to show my asinine assurance in expecting any good result from this exposure—a portrait interior—with my extemporaneous apparatus and way of doing; that

afterwards I was compelled to crawl back to her feet there, bump my head on the floor seven times, and moan, "What an awful shame after the time you kept still, etc., etc.," in the usual green amateur way of coming back at 'em. But not this time! It sounds incredible I know, I know, but that exposure produced the one perfect portrait negative of my lifetime so far, no matter on what plate or film or with what lens the others may have been made.

The contrasts were beautiful, and the subject: nerve! never a tremor showed on the edges of the poor poised hand and fingers, and the profile of the face was cut like a cameo and the arrangement of the picture was perfect. I worshipped it for years until it was lost—or was it stolen?

That slide-lid camera taught me the art of mixing pyro and ferrous-oxalate cocktails with great facility, and made me love and not shy at the developing bath and was otherwise wonderfully useful as an educator, but was fiercely tiresome for one thing. I hope the reader has followed me closely enough to understand and realize that every little time I sallied forth, my artillery contained just one and only one shot.

It was like a gunner going out with one charge in his old muzzle-loader and no powder horn, I had to hunt my darkroom hole after every exposure, and how tired I became of digging those tacks out and losing them.

By now I had made the timid dressed-up acquaintance of the staff of nearly all the photo-material stores and counters in the great city, and one most friendly salesman in the big department store seemed to take great pleasure in showing me new things in apparatus, etc., for the mere sake of doing it. Rest his ashes! He sold me a splendid 4 x 5 single lens of the finest type, cheaply, because taken from another camera to please a customer. So that meant a new camera for me.

I made it from Spanish cedar cigar boxes, and made two plateholders for transparent film to try out the lens. Not long after this time of experiments I can recall a conversation. I said to my friendly salesman, "Say, Mack, let me have a couple more plateholders and a box of the fastest plates on the market."

The next time I essayed Clarice's portrait, "me box" was quite entirely different; imagine a brass-braked polished cedar drop shutter ornamenting the front, and could take on rubber bands and deliver instantaneity in any sized infinitesimal chunks the heart desired.

"How many minutes do I have to sit this time?" and the eyes, they mocked at me. I steadied my nerves and prevented myself from making a rush herward, and carelessly said as I produced "me box," "Oh! I'll take you as I walk past—and I will too, some day," I finished fiercely. Ignoring the last words of my speech, and never seeming to see what must have showed in my eyes the light of desire, she said, "Well I thought you must have bloomed out suddenly when I saw the last picture you sent."

I had bloomed!

ON THE INDIVIDUALITY OF STYLE

BY SIDNEY ALLAN

Illustrated by Walter E. Bertling.



IF WE go out into nature or start forth on an excursion, bent upon the task of bringing home a few successful snapshots, we generally have some preconceived idea of what we would like to take. But as we approach the subject, we see it from so many viewpoints that it becomes difficult to decide which of these would be the most appropriate one. The problem of selection confronts us. The material is vaster than we thought. Each stop reveals a new pictorial vision, and as we are only too eager to get some kind of result, we are apt to forget all about our plans and intentions, and snap the first good view that offers itself.

A little more forethought would produce more satisfactory results in most instances. We would oftener get what we intended to get. The results would come up more frequently to our expectations. For what is the use, if we intended to make a decorative study, to get a mere fragment of nature! Or to get a blurred effect if we wanted a careful delineation of detail.

Every picture of merit represents a certain pictorial vision. It is either realistic, popular, pictorial, decorative or impressionistic. And it should be at all times perfectly clear in our mind, as to what particular style is most appropriate to the representation of a subject. The original idea should reign supreme and guide our selection of viewpoint, and the treatment of all the pictorial features of a scene. Among the accompanying illustrations, which W. E. Bertling, a well-known amateur of Buffalo, was kind enough to furnish for this article, we find examples of all the various styles of representation that are possible in ordinary landscape photography. "Snow Shadows," "Weed-grown Orchard" and "Near the Life-Saving Station." Figures 1—3, are examples of the real-



SNOW SHADOWS (Fig. 1) *W. E. Bertling*



NEAR THE LIFE-SAVING STATION *W. E. Bertling*

(Fig. 3)



APPLE BLOSSOMS *W. E. Bertling*

(Fig. 4)



THE VILLAGE CHURCHYARD *W. E. Bertling*

(Fig. 6)



THE ORCHARD *W. E. Bertling*

(Fig. 11)

istic style. "Apple Blossoms," "The Wooded Shore," "The Village Churchyard," and "The Incoming Tide," figs. 4—7, show considerable skill in picture making. They are not merely studies but finished pictures. "Evening Effect," "Early Morning" and "Bungalow thro' Mist," figs. 8—10, on the other hand, are mere impressions. While the remaining three, "The Orchard," "By the Lakeside," and "Tulip Trees," figs. 11, 13, and 14, are all conceived in the decorative spirit.

To note the differences and to analyze the merits and shortcomings of these various ways of recording nature is the main object of this article. The realistic style is the most common one. No doubt, for the reason that it is easiest to handle. Composition does not play an important part in it. Almost any subject that is halfway pleasing to the eye may serve the purpose. With this I do not mean to convey that composition is unnecessary. No pictorial delineation is possible without some sort of balance and play of lines. But it is rather the subject itself than any mental calculation which makes the picture. Figure 1, by the repetition of the shapes of the tree trunks, has a vague decorative tendency, but it is entirely too bald to be classed as a decorative study. It is not even satisfactory as a realistic fragment, as the snow and the tree trunks show too little detail. Figure 3 is much better. One might call it a foreground study of goldenrods. But there is not the slightest attempt at composition in the arrangement of the stalks. The two trees in the distance are by far the best in treatment. Figure 2 is an ordinary view, but not even good for a postal card. It lacks in interest. The title is better than the representation. There is no objection to the angular framework, but it is badly handled. Photographs of this kind are mere records—it is absolutely impossible to do anything with motives like figs. 1 and 2—and it is difficult to understand why so many amateurs insist on making records of objects and scenes that are pictorially without any interest whatsoever.

I believe, every photographer starts with the idea of making a picture that has some meaning to other people. And if such a picture is easily understood and liked by the majority who see it, it is a popular picture. This seems to depend largely on the choice of subject. The subject in itself must possess the quality to please, for instance, a sunny, cheerful poetical subject, like fig. 4. It is not particularly well composed, nevertheless, agreeable to look at. Apple blossoms are always apt to awaken pleasant associations of thought, and it is this state of mind which makes us like this picture. Figure 6 is the most ambitious picture of this class. It might serve as an illustration of Gray's well known poem. The sentiment of the place and time of day are well expressed. But it is too indistinct in parts, there are too many wild flowers in the foreground, and, excepting the tower, no indication of a village churchyard. The public always notices these things, and in that respect is after all a most reliable critic, even if it cannot express any reasons for its approval or disapproval. Bertling's "Village Churchyard" lacks directness. People like simplicity, and for that reason fig. 7 is a better picture from



WEED-GROWN ORCHARD *W. E. Bertling*
(Fig. 2)



BUNGALOW THROUGH MIST *W. E. Bertling*
(Fig. 10)



INCOMING TIDE *W. E. Bertling*
(Fig. 7)



TULIP TREES *W. E. Bertling*
(Fig. 14)



EARLY MORNING (Fig. 9) *W. E. Bertling*

the popular viewpoint than fig. 5, although the latter is a much more ambitious effort. But it is overcrowded, and, no doubt, would greatly improve in an enlargement. There is little fault to be found with fig. 7. There could be, however, a little more differentiation in the values of the sea and sky, A lighter print would do more justice to the subject.

The impressionistic style (very much in favor now) cares less for the actuality of things than is permissible in pictures of the popular order. It is best adapted to the representation of moods and atmospheric effects, as in fig. 10. People who fancy vagueness of delineation no doubt will find something to admire in this picture, but after all it expresses very little. The vista effect is good, and, perhaps, it was the only way to treat the bungalow in a halfway pictorial fashion. But would you hang it on the wall of your room? Perhaps you are more critical that I am and would refuse hanging space to any of the pictures I have so far discussed. I, for my part, might live with pictures like figs. 4—7, which is, after all, the final test, while I would soon tire of fig. 10. The cult of indefiniteness has gone too far. In fig. 8, for instance, one has to guess whether the ground represents water, sand or snow. And surely fig. 9 would have furnished better material for decorative purposes than an experiment in vagueness! That subject was decorative in itself, it was not necessary to render it decorative by the selection of a viewpoint, and the most natural way was to take it in such a way that would express the peculiar characteristics of the scene.

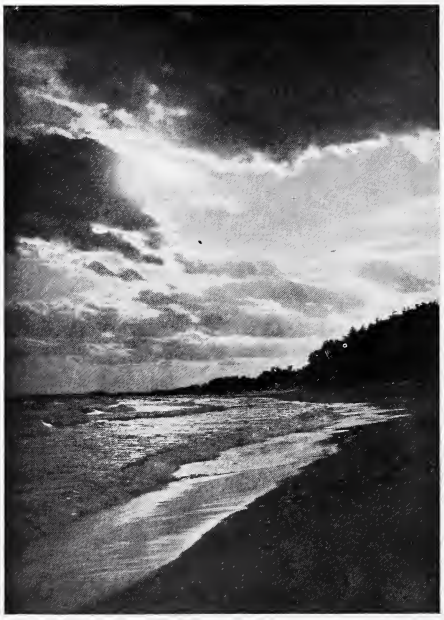
In the decorative rendering of subjects everything depends on composition. It is frequently provided by nature as in figs. 9, 11 and 13. In other



EVENING EFFECT (Fig. 8) *W. E. Bertling*

instances, as in figure 14, it depends entirely on the treatment. Tulip trees that grow at a certain distance from each other like the two in Bertling's picture can be found everywhere. It was merely the problem of bringing the two stems into such relation that they produced a decorative effect.

Bertling seems to be strongest in decorative effects, and I wish he would concentrate upon this particular quality which is rare enough in amateur photography. Versatility is a rare gift, but few men can master all styles in so perfect a manner that they are able to imbue them with a touch of their own personality. Many of the prints shown on these pages could have been made by somebody else just as well, while his decorative studies, almost without exception, show a decided individuality that is well worth cultivating.



WOODED SHORE *W. E. Bertling*

(Fig. 5)



BY THE LAKE-SIDE (Fig. 13) *W. E. Bertling*

Editorial Notes

THE accompanying picture by Allen M. Clay, entitled "The Cloister," is an enlargement from a small negative made with a Zeiss-Tessar No. 2-B Lens on an Eastman Film. The exposure was half of a second with F 11 stop, at about three o'clock in the afternoon. The enlargement is on Royal Bromide paper, re-developed, from a film 3¼ x 4¼ in size. Some time ago we reproduced a picture by Mr. Clay entitled "A June Morning," which was much enjoyed by our readers. We feel sure they will receive "The Cloister" with equal favor.

WE TAKE pleasure in showing our readers, this month, a photograph made "in the land of Sir Walter" by our correspondent, Edward L. Brown, of Edinburgh. The picture is entitled "Rymer's Glen," on page 428, and is an excellent example of landscape photography, made with a plate and tripod camera.



THE CLOISTER — *Allen M. Clay*

WE WERE very much pleased to see our valued contributor, Mr. William Steeple Davis, of Orient, L. I., when he called at our office recently. Mr. Davis is an artist and illustrator by profession, and follows photography as a pastime. He showed us a very ingenious and efficient hand camera, which he himself had constructed, when he was here. It was fitted with a single achromatic lens, which he had taken from an old camera; but, with that exception, the camera had been constructed entirely by Mr. Davis, including even the shutter.

HOW is it, why is it, that one can so often tell at first glance that this is a snapshot, that that is a carefully thought out, selected, arranged, and waited-for result? This must not be taken to imply that all snapshots are bad, or that the thought-out results are good. On the contrary, some of the best work is of the snapshot kind. But this is seldom, if ever, of the "chance-it-and-hope-for-the-best" kind. The majority of snapshot results fail to obtain more than a glancing interest. One reason for this is that the producer had no definite object or aim in his mind. The general view is usually of too vague a character to retain attention. It shows too much, too many objects of minor importance, too many buildings, too many figures, too wide an expanse of featureless country. The photographer, be he hand or stand camera user, should get into the habit of asking and answering himself the question, "What am I aiming at in this picture?"

THIS self-examination as to definiteness of intention will at first be a slow business. But a little practice in looking for, seeing, and selecting pictures as one is walking along the street without a camera, but at the same time taking imaginary pictures, will prove a most valuable training. With many of us the mere fact of having a camera at hand with a few available plates is a great temptation to use them without being quite sure that the subject is worth while. But the above-suggested street, seaside, or country walk practice in seeking, seeing, selecting, and quickly deciding possible pictures, apart from the technical considerations of manipulating a camera, will train the eye to see quickly and the mind to judge quickly as to what is and what is not worth attempting. The worker who thus is content to "go slow" just at first will soon acquire surprising facility of seeing and judging.



Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

RESISTANCE OF GELATINE TOWARDS THE DESTRUCTIVE ACTION OF THE ALKALIES, BY A. AND L. LUMIERE AND A. SEYEWETZ.

It has usually been accepted that the various caustic and carbonate alkalies, as well as their substitutes, exert a more or less destructive action upon gelatine.

This destructive action varies according to the alkali, its concentration and temperature. To our knowledge, the matter has never been thoroughly investigated, but simply taken for granted.

In the foregoing study we have endeavored to determine the above points.

A knowledge of these properties permits us to determine which alkali is best suited for making up our developing solutions.

In all our tests we used gelatine which had been poured in a thin layer on strips of glass. The gelatine was colored with a dye in order to more easily determine the point when the gelatine dissolved.

First we tested the action of alkaline solutions in increasing strengths at temperatures from 15 degrees to 17 degrees C. (59-62.6 degrees F.)

The strips of glass were always dipped in the same volume of alkaline solution until the gelatine dissolved.

In the first series of tests we used aqueous solutions containing equivalent molecular weights of the alkalies dissolved in one liter (33 ozs.) of water.

The temperature varied between 15 degrees and 20 degrees C (59-68 degrees F.). Caustic soda, potash and lithia dissolved the gelatine in 25 minutes, caustic ammonia, sodium and potassium carbonate and tribasic sodium phosphate after ten days only loosened the gelatine from its support.

In three further tests we used more concentrated solutions than in the previous case excepting the tribasic sodium phosphate, as half the molecular weight makes a saturated solution.

We ascertained that the caustic alkalies destroyed the gelatine faster as the concentration increased.

Fifteen minutes was sufficient for the destruction when the concentration of the caustic alkalies was increased to 100%, the gelatine divided into small fragments which remained swimming in the solution.

On the contrary, ammonium hydroxide and the alkaline carbonates exert no destroying action on gelatine, but only loosen it from its support.

In ammonia solution the gelatine stretches and swells very much but in carbonate alkalies the gelatine retains its original size.

In fact strong solutions of alkaline carbonates seem to harden the gelatine.

After we finished our tests with the concentrated solutions, we tried them diluted, in some cases only one-eighth that of our first tests. In these latter tests the action was the same as in the first tests, excepting that as the caustic alkali solutions are more diluted the length of time for dissolving the gelatine is increased. As we have mentioned above, molecular weights of the alkaline carbonates per liter of solution required 25 minutes at 15 to 17 degrees C. (59-62.6 degrees F.), with half of this strength it took one and a half hours, at one-quarter strength nine hours. The caustic alkalies act similarly.

The above experiments repeated at temperatures up to 30 degrees C. (86 degrees F.) produced no change in case of the alkaline carbonates, ammonia or tribasic sodium phosphate. But with the caustic alkalies the time is shortened as the temperature is raised and at 27 degrees C. (80.6 degrees F.) only two minutes is required to dissolve the gelatine.

We also determined the temperature at which gelatine dissolves when warmed in

an alkaline solution which when cold would not dissolve it, caustic alkalies were excluded excepting ammonia. Caustic ammonia does not dissolve gelatine when cold even after a long time; only a swelling and stretching takes place.

On heating the ammonia solution the gelatine dissolves, but the temperature is about the same as that when only pure water is used. The alkaline carbonates and the tribasic sodium phosphate do not dissolve the gelatine, either when they are diluted or concentrated; in fact they do not attack the gelatine at all but prevent its solution in the cold as well as at a higher temperature. As the concentration of the alkaline carbonates is increased the gelatine becomes less soluble until it will stand a temperature of 100 degrees C (212 degrees F.).

The practical results of these tests are that the alkaline carbonates as well as ammonia may be safely used in the developer without any fear that the solution might attack the gelatine, but caustic alkalies should be avoided.

Tribasic sodium phosphate can be substituted in many cases as it acts like a caustic alkali with certain developers.
—*Photographisches Wochenblatt, Vol.* 38, No. 17.

* * *

PROTECTION FOR X-RAY OPERATORS.

Since the discovery that the X-rays possess a harmful action on the human system, operators have endeavored to devise means and methods for their protection as well as those directly subjected to the rays. Dr. Aubourg, of Paris, has designed a special uniform for those engaged in this work.

The face is covered with a mask of rubber, in the eye holes are glasses made from special glass rich in lead salts.

Lead glass is not penetrated by the X-rays. Inclosures for the tubes are also made of this glass. The inclosure is made with an open space on one side which is so arranged that the rays can be turned in any direction. The patient sometimes is enclosed in a cabinet and the operator stands outside from where he directs the tube and controls the current. The cabinet has windows of lead glass so that the operator can supervise his work.

The uniform proper and the gloves are made from a cloth containing considerable rubber, lead and bismuth, which are known to be quite impervious to the X-rays.
—*Kamera Kunst,* Vol. 8, No. 24.

* * *

GOLD PHOSPHATE TONING BATH, BY MAES.

There are dozens of toning baths, but among these many recipes is one quite old now which under all circumstances yields wonderfully good results. It is a gold toning bath with sodium phosphate. The author has in his possession prints which were toned in a bath of this kind thirty years ago and are in perfect condition. Recently this toning method was taken up again with excellent results and it was thought worth while to place it before the photographers once more. One of the peculiarities of this phosphate bath is that it is not necessary to over-print, as the toning does not materially reduce the density, in fact it seems to intensify the print slightly.

1.0 gm. (15 grains) of brown gold chloride is dissolved in 500 c.c. (16 ozs.) of distilled water. This stock solution keeps well in a yellow bottle. A few minutes before beginning to tone a small pinch of tribasic sodium phosphate (Na_3PO_4) is dissolved in 200 c.c (6½ ozs.) of pure water. To latter solution is added with constant stirring 40 c.c. (1⅓ oz. of the gold solution. At first the mixture possesses a slight yellow color, which soon disappears, and when the solution has become colorless, it is ready for use. The prints before toning should be washed in several changes of water and then placed in the toning bath. The prints tone very rapidly and it is betbefore beginning to tone, a small pinch of bath at once to better control the toning. The yellow-red color which the prints acquire in the preliminary washing quickly changes to a light purple in the toning bath. With a fresh toning bath the change in color takes only about half a minute, the prints are then washed before placing them in the fixing bath. Prolonged toning changes the color to a blue-black.

The fixing is carried out in the usual

manner in a 15% solution.—*Photo-Revue,* Feb., '12; *Photographisches Wochenblatt,* Vol. 38, No. 16.

* * *

AUTOMATIC PRINT WASHER.

The professional photographer in most cases uses trays into which running water is led to wash his prints. As is well known, fixing soda being heavier than water, falls to the bottom. This method does not wash prints very well unless the tray is emptied several times, especially in the beginning. Washing boxes for plates, in which the plates stand in grooves with water running in at the top and out at the bottom are most practical.

But those boxes in which the order is reversed, water running in at the bottom and out at the top are quite useless as the fixing soda remains at the bottom. While several washing machines, have been designed for paper prints, they are but little used.

Recently on looking through an old (1863) photographic book by Kleffel, I found a simple and very practical arrangement. The cost of making it ought to be small and consequently of interest to manufacturers.

The principle upon which it is based is quite different from any other in use.

The photographer need only to put the prints in the apparatus and turn on the water. The washing takes place without any further attention, and it is thorough. Another thing, it takes less water to wash a given batch of prints than in the usual manner. This saving in water is quite an item in the yearly expenses where a meter is installed.

The apparatus may be described as follows: Fig. b is a zinc tray, its size governed by the requirements of the studio. Below at one side is a syphon which should be large enough to empty the tray in a few minutes. The opening of the syphon should be covered with a perforated plate to prevent prints from stopping the flow. The tray rests on six feet k, f, and i. The feet at the sides are not exactly in the center, but 2 or 3 c.m. (4-5 to 1½ inches) toward the rear. The feet k and f are about 4 c.m. (1 3-5 inches) high. At the rear of the tray is a small pocket which contains sufficient shot to balance the tray and keep it level when empty. As soon as the tray contains enough water to fill the syphon, the tray becomes unbalanced because the part beyond the foot f becomes heavier. The tray now falls forward on foot i, the water is rapidly syphoned off and the shot at the rear draws it down again, when the operation is repeated. The prints are kept in slight motion from the water running in, but are not whirled violently around as in most washers. The speed of washing can be controlled by the rate of flow from the faucet.

Photographische Cronik, No. 70.

* * *

BROWN TONES ON MATTE P.O.P.

The following method for obtaining brown tones on matte surface printing out papers is better than that usually given by the manufacturers:

The prints should be fixed in a fresh 10% fixing soda solution and washed for 20 minutes. The prints have now acquired a disagreeable yellow color. After washing the prints they are placed in a normal platinum bath made by adding to 1 litre (33 ozs.) of water 10 c.c. (⅓ oz.) of nitric acid and 0.30 gm. (4½ grains) of platinum salt. The prints remain in the platinum bath until they have the required tone, which usually is a nice warm sepia brown. In case the tone is too yellow, the above directions are followed with the exception of the platinum bath, in place of the latter the prints are first placed in a combined toning and fixing bath until they begin to tone. The prints are then washed and placed in the platinum bath until they have the required tone. If the toning is carried further, the prints after drying have a more or less, dark brown to black color.

Photographische Chronik, No. 49, 1912.

Discoveries

[All readers of The Photographic Times are invited to contribute to this Department reports of their Discoveries for which we will allow One Year's Subscription, on publication of the contribution.—The Editors.]

PHOTOGRAPHING AUTUMN FOLIAGE.

The season for autumn tint effects is with us for the moment. Photographers wishing to secure effects of this kind should not delay making their exposures, as the branches are already being stripped of their leaves. It is just this time of year, when the red and orange tones largely replace the more familiar greens, that one realizes how much the character of a foliage landscape depends on color, and here comes in the value of a panchromatic plate. The reader may be reminded that for most practical photography purposes we may divide the normal color spectrum into three parts, viz.: red, green, and blue-violet. Red and green combined give yellow, green and blue give blue-green, blue and red give purple. The ordinary plate is so much more sensitive to blue than to any other color that it may be called blue-sensitive.

The average orthochromatic plate is sensitive to green as well as blue, but more sensitive to blue than green; hence a yellow screen (passing red and green rays), is used to cut out some of the supersensitive blue action. A panchromatic plate is sensitive to blue, green, and red, but still its blue sensitiveness is too great compared with the red and green sensitiveness. Thus again a yellow screen passing red and green rays is used to handicap the over-sensitive blue. The worker seeking to secure the warm luminous effects of the red, orange, and brown autumn tints thus may see that the ortho-plate must miss the red constituents of the scene, so that a red sensitive, *i. e.*, panchromatic plate and yellow color filter, is required. And one need hardly add that as the plate is red-sensitive the plateholders should be loaded in absolute darkness and development be likewise conducted in darkness, namely, in a covered dish or tank, by the time and temperature method.

F. C. Lambert.



HIGH-SPEED PICTURES WITH A HAND CAMERA.

I attempted to photograph a flying machine at the county fair. I was perched on a fence with the camera (Series II Korona) in my hands. The machine passed by quickly at high speed and I was unable to see it in the view finder, so snapped the shutter anyway, getting a good picture, except that the back of the machine was not on the plate. All guess work, of course. Since I have learned better. Draw a straight line with chalk, or paste a narrow strip of paper, on top of the box part of the camera, exactly in the middle—where the button is that you press to open the camera or locate the middle in any other way. Or you may make two marks, like the back and front sight of a gun. Now sight down close along top of camera same as over the barrel of a gun. By setting camera on a tripod and making a few sighting tests you will see that you can "shoot" with great accuracy with your camera this way and can locate objects to be taken quicker than with any reflecting or hooded camera. Of course you must notice when taking a picture that the rising and falling front of camera is not off from center of plate. As the day was a little dark when taking picture referred to I made exposure 1-100 of a second. With the machine at about 200 feet and passing almost directly across the path of lens, the exposure was quick enough for machine, and also showed plainly objects on the ground. Lens opening F. 6:8. Set focus scale at 100 feet, of course.

Burt Stone.

Items of Interest

DRYING NEGATIVES.

Where time is not of serious importance, it is advisable to let a washed negative dry spontaneously in a rack in which there is plenty of space (not less than half an inch between two adjacent plates), and where there is a current of dust-free air. The back or glass side should always be wiped dry with clean rag. This hastens drying, and aids towards even drying. But if a negative is wanted quickly in a dry state it may be obtained by the well-known method of bathing it in methylated spirit for five to ten minutes, when it will dry in five minutes or less after being placed in the rack in a good current of air. Two minor points are often neglected, resulting in delay in drying. First, the dish in which it is to be bathed in methylated spirit should be wiped dry before the plate and spirit are put therein. Next the back of the negative should also be wiped dry. Further, it will hasten matters if the film side be surface-dried by lightly pressing the negative between "robosal," or some other form of fluffless blotting-paper. All these three minor points tend to the same end, viz., the avoidance of diluting the methylated spirit by carrying water into it. The more water in the spirit the less its water-attracting power, so that the same lot of spirit should not be used more than a few times.

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PHOTOGRAPHING JEWELRY.

It is often desirable to photograph coins, jewelry or other objects without a shadow, and having a clear, plain background. A large sheet of white paper or cardboard is placed on a table or floor and upon this, some distance apart, are placed two plate boxes, on these boxes is placed a large sheet of clear glass.

DEVELOPING AND FIXING IN ONE SOLUTION, BY R. A. DARNE.

This method was originally worked out by v. Backer but attracted no notice. The author calls the attention of the photographers to this method as it is a much simpler way of making negatives. So far the results have been satisfactory.

English.		Metric.
7 ozs.	Water	200 c.c.
5 drams	"Hypo"	20.0 gms.
2½ drams	Potassium hydroxide	10.0 gms.
2½ drams	Edinol or hydrochinone	10.0 gms.
45 grs.	Potassium metabisulphite	3.0 gms.

If after development the film is very soft the plate should be slightly washed and then placed for a few minutes in an alum solution, washed and dried in the usual manner..—*Photo-Revue,* 1911. *Photographisches Wochenblatt, Vol.* 37,

☆ ☆ ☆

DRY MOUNTING PROCESS.

Many amateur photographers are otherwise busy men, who can only spare short intervals of time for the camera hobby, and so are glad to hear of any time savers. For this reason I mentioned the dry mounting process. A paper-like "tissue" is impregnated with some substance which at a certain temperature becomes sticky, much in the same way that familiar sealing-wax becomes adhesive when suitably heated. If a piece of such dry mounting tissue be placed between a (dry) print and mount, and then heated, the print, tissue, and mount all hold together. Any reader interested in this matter may see a demonstration of the process by calling at the Adhesive Dry Mount Company, 27-28 Fetter-lane. But the process is really so simple that it may be picked up in a few minutes with the aid of an explicitly-worded pamphlet obtainable (gratis) at this address. F. C. LAMBERT.

Among the Camera Clubs

[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—The Editors.]

NOTES FROM THE ILLINOIS COLLEGE OF PHOTOGRAPHY, AND THE BISSELL COLLEGE OF PHOTO-ENGRAVING, EFFINGHAM, ILL.

Fifty-one students enrolled for the September class, nine of them being ladies.

We are in receipt of a nice letter from Mr. and Mrs. Fleming Long, of Monmouth, Ill, both of whom were students at the college about eleven years ago. They have made a fine success of photography, and sent us two young lady students for the September class.

Mr. Geo. Frederiksen, of 1908, who has been visiting the college and friends in this city the past month, has taken a position with the Boyle Studio of Mobile, Ala., of which Mr. Dishinger, of 1910, is the manager.

Mr. Robin Campbell, of 1909, writes us from Blatchley, Australia, that he is having excellent success at photography in that far country. He says Australia is practically a new field for the business.

We received pleasant visits last month from Mr. Lewis Barrack, of 1910, Mr. Gordon Gray, of 1906, and Miss Isabel Evans, of 1907.

Rev. Frank Ferris, one of the students at Engraving Hall, assisted by Mr. Lionel Merrill, tenor, and Miss Blanche Skinner, soprano, gave a splendid lecture, with sixty stereopticon slides, on the face of Jesus, at the Assembly Hall last month. The music was as good as the lecture and the entertainment drew a packed house. The college is justly proud of its local talent.

Mr. Thos. McGuigan and Mr. Jos. Neumeister have returned to finish their course in engraving after being absent the past summer.

The students voted a half holiday on the 5th of last month to attend a matinee by Sousa's band at the local opera house. The students attended en masse.



THE WEST VIRGINIA CONVENTION.

The photographers of West Virginia held their convention at Wheeling, from October 9th to 11th, and owing to the efforts of Mr. J. E. Giffen the occasion was most successful.



The Missouri Photographers' Association met in convention at St. Louis, September 2nd to 5th, and had a most wonderful series of meetings.



MOTHER'S FACE.

Three little boys talked together
  One sunny summer day,
And I leaned out of the window
  To hear what they had to say.

"The prettiest thing I ever saw,"
  One of the little boys said,
"Was a bird in grandpa's garden,
  All black and white and red."

"The prettiest thing I ever saw,"
  Said the second little lad,
"Was a pony at the circus—
  I wanted him awful bad."

"I think," said the third little fellow,
  With a grave and gentle grace,
"That the prettiest thing in all the world
  Is just my mother's face."

Let us photograph it for him. The Evans' Studios, Philadelphia and Atlantic City.

Photographic Reviews

Film users may be glad to hear of a useful "tip" for extemporizing fixing and washing contrivances which I glean from page 301 of the "Amateur Photographer" (Sept. 23), this article being the third of a series dealing with the treatment of films. "Obtain several jam or marmalade pots. The pots in which Dundee marmalade is supplied are most suitable, being of plain white ware, with no shoulder or neck at the top, the three pound size being convenient. The roll of film is dropped end-ways into the jar of fixing solution. If a glass rod is now placed into the centre of the roll and gently stirred round in the direction opposite to that in which the film is rolled it will be found that the spool will slowly open out in the solution, while stirring in the reverse direction will contract the roll." One need hardly add that the idea could be applied to developing, fixing, washing, or any other bathing process; the convenience of having a good supply of such bathing vessels barely needs mention.

⁂ ⁂ ⁂

"Outdoor Photography," by Julian A. Dimock, Outing Publishing Co. Price 70c.

The purpose of this little book is to serve as a guide not only for the man or woman who has just taken up the use of the camera, but also for those who have progressed far enough to know some of the problems that confront them, and presents a solution of many of the problems in camera work out of doors. The various subjects dealt with are The Camera, Lens and Plates, Light and Exposure, Development, Prints and Printing, Composition, Landscapes, Figure Work, Speed Photography, The Leaping Tarpon, Sea Pictures, In the Good Old Winter Time, Wild Life.

"Old Paris, Its Social, Historical and Literary Associations," by Henry C. Shelley, Boston. L. C. Page & Co.

This book is a very handsomely illustrated work on fascinating "Old Paris," including an account of the famous cabarets, hotels, cafes, salons, clubs, fairs and fetes and theatres of the French capital in the bygone days. The illustrations will be particularly interesting to our readers as they are very well executed, and breathe the spirit of ancient Paris. In preparing these illustrations many rare old prints in the British Museum were used, and these are usually unobtainable.

⁂ ⁂ ⁂

The September number of *Portrait* is embellished by an excellent group picture of the beautiful Launey Sisters, of Savanah, Ga., and the "Hall of Fame" in the same number, contains an interesting account of the professional career of these ladies.

Felix Raymer continues his valuable series of papers on "Something New in Home Portraiture," with excellent illustrations of the practical instruction conveyed. There is a good interior picture of Arthur F. Gibson's Photographic Supply Store, at Jacksonville, Fla.

⁂ ⁂ ⁂

The cover portrait on *Portrait* for October, is an excellent likeness of M. O. Schellenberg, of Santiago, Cal. Felix Raymer still continues his interesting series of articles on "Something Different in Home Portraiture," with instructive illustrations as heretofore. The leading article is by W. H. Smythe, on "An Interesting Phenomenon on a Source of Trouble to Prints on Developing Paper."

Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

We have received from the Wollensak Optical Co, one of their very useful leather counter mats. These mats were primarily intended for use on the dealer's show cases, for the display of Wollensak and other good lenses, and small cameras and other photographic objects; but the manufacturers received so many letters from the dealers and other requesting the mats, that they have had a sufficient quantity made to provide for these good friends. We certainly appreciate the one which we have received.

The Wollensak Optical Company announces the publication of a booklet to be issued by them every other month, which will be called "Lensology and Shutterisms." It will contain interesting news concerning Wollensak products, their very excellent methods of doing business, etc., and it should prove of value to dealers as well as to purchasers of photographic objectives.

The Wollensak Optical Company reports a gratifying increase in the sale of Wollensak products during the past year, and they naturally felt very well pleased with the result from the publicity campaign which has been carried on by their Department for the Promotion of Trade, under the able management of Mr. H. O. Bodine. We congratulate both the Wollensak management and Mr. Bodine, personally, on these gratifying results.

☆ ☆ ☆

On Monday, September 9th, Marshall, Brookes & Chalkley, Ltd., printers and publishers of *The Photographer-Dealer, The Sports Trades Journal,* and *The Retail Trader,* removed to Sicilian House, Southampton Row, London, W.C., from Harp Alley, London, E.C.

One becomes accustomed to glancing only casually through the advertisements in a magazine, and very often not reading at all what the advertisers have to say for themselves. Right here we would like to say that it would not be time wasted to read the Eastman Kodak Company's advertisements which appear each month in this publication. They are full of valuable hints in all lines of photography and should be of interest to both amateur and professional. Not only are the arguments in favor of Eastman goods written in a clear and convincing manner, but much general photographic knowledge may be gleaned therefrom.

In passing, we wish to call the attention of photographers to Tozol, a developing agent made by the Eastman Kodak Co. This developer is economical and simple, and should be given a trial by all who do not already use it regularly.

☆ ☆ ☆

We know our readers will be interested to hear about the "Balopticon," a stereopticon manufactured by the Bausch & Lomb Optical Co. Up to this time a stereopticon in the home and for amateurs has been too high-priced, and too complicated to be practical. The new model B. Balopticon, however, is cheap enough in price to place it within the reach of all and yet it is a high class stereopticon, which will show your kodak views greatly enlarged on a screen and with a clear perspective. The entire apparatus is made in the Bausch & Lomb factory, and is the result of careful experiment and is made from the best material. A great deal of pleasure and profit may be had from one of these lanterns, and we advise anyone interested in this line to write Bausch & Lomb Optical Co., Rochester, N. Y., for particulars about their model B. Balopticon.

The Ansco Company has put out a new and very useful piece of apparatus which they call "The Ansco Printing Machine." It is designed to enable the large army of Cyko users to get the best results by working with a dependable light source. The great trouble with professional printing machines on the market has been, first, the high price asked for them; second, the difficulty in installing them; third, the great expense of maintenance inasmuch as the light is always burning between exposures; fourth, the unevenness of the light because of the carbon lamp. All these drawbacks have been eliminated in the Ansco machine. The price is within the reach of everybody, and it can be connected by anyone to an ordinary common electric light socket.

☆ ☆ ☆

Preliminary announcements of the *American Annual of Photography for* 1913, and *The British Journal Photographic Almanac* for the same year, by the American Agents, George Murphy, Inc., are out. From these announcements we read that *The British Journal Photographic Almanac* this year is in its 52nd year. It will contain many new and valuable features this year, and will be ready for delivery about December 12th. Among the leading articles are: "Fitting up the Dark Room," a practical article on this department. "How to do it," a series of over one hundred hints on all branches of photography, illustrated with drawings. "Formulæ for Daily Work," a revised series of formulæ, in each case telling how to make up solution, and the best way to use it. "Tele-Photo Work," explaining practical methods of Tele-Photography. The price of the almanac is 50c., paper covers, postage 20c. additional. Cloth bound, $1 each, postage 37c. Orders will be taken and filled by *The Photographic Times Publishing Association.*

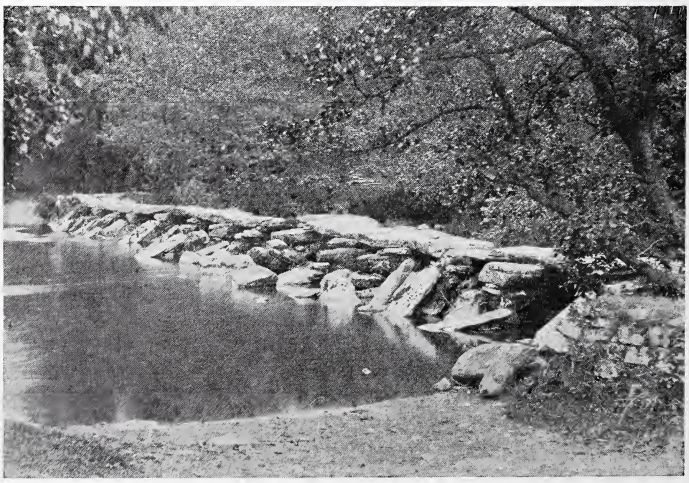
☆ ☆ ☆

The "Agfa" folks wish us to inform our readers that they have a good many requests for the Agfa Formulæ Book and the Agfa Flashlight Book, which they are unable to fill inasmuch as some of the requests are without name and others are without the address. If you feel that you are not receiving these books promptly enough, it may be that your request is among this lot.

The Berlin Aniline Works, 213 Water Street, New York, N. Y., like their products bearing the Agfa brand, are desirous of giving the best service possible.

☆ ☆ ☆

The Paragon Photo Materials Company, 77 West Washington Street, Chicago, Ill., is issuing a neatly printed and illustrated pamphlet, describing their new photographic printing machine, dark room lamp, and retouching and tilting stand. We suggest that you send for their pamphlet giving full particulars.



The Photographic Times

With Which is Combined

ANTHONY'S PHOTOGRAPHIC BULLETIN

SUBSCRIPTION RATES one dollar and fifty cents a year, payable in advance. Foreign Postage 50 cents, Canadian Postage 25 cents. Single copies 15 cents. Subscriptions to the *Photographic Times* received by all dealers in photographic materials in this and foreign countries, also the American News Co. and all its branches.

POSTAGE IS PREPAID by the publishers for all subscriptions in the United States, Hawaiian Islands, Philippine Islands, Guam, Porto Rico, Tutuila, Samoa, Shanghai, Canal Zone, Cuba, and Mexico. For all other Countries in Postal Union, except Canada, add fifty cents for Postage. Canadian postage 25 cents.

CHANGE OF ADDRESS.—When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent one week before the change is to take effect.

DISCONTINUANCES.—If a subscriber wishes his copy of the magazine continued at the expiration of his subscription, notice to that effect should be sent. Otherwise it is assumed that a discontinuance of the subscription is desired.

HOW TO REMIT.—Remittances should be sent by Draft on New York, Express Order, or Money Order, payable to order of *The Photographic Times Publishing Association*. Cash should be sent in registered letter.

CONTRIBUTIONS.—All literary contributions, correspondence, "Queries," etc., should be addressed to *The Editor;* all advertising matter to the Advertising Manager.

LETTERS should be addressed:

THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION,
135 West 14th Street, New York.

Classified Advertisements

Advertisements for insertion under this heading will be charged for at the rate of 25 cents a line, about eight words to the line. Cash must accompany copy in all cases. Copy for advertisements must be received at office one week in advance of the day of publication, which is the first of each month. Advertisers receive a copy of the journal free to certify the correctness of the insertion.

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High Grade European and American Outfits a Specialty

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Learn PHOTO-ENGRAVING, PHOTOGRAPHY, COMMERCIAL ART. 32d year. BARTHOLDI'S TRADE SCHOOLS, 92 5th Ave., New York.

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Why pay exhorbitant prices for your photographic accessories when you can obtain from us everything you need in your photographic work—whether amateur or professional—at greatly reduced prices.

New BARGAIN LIST just off press. Send for copy to-day

New York Camera Exchange 109 Fulton Street, N. Y.

BEST, EASIEST and CHEAPEST

method of treating prints to

PERMANENTLY PREVENT CURLING

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Copying of old photographs a specialty

75% Back to You

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810 Broadway, New York

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

A LOGICAL CONCLUSION.

If a boy's mind naturally turns to the use of tools, it isn't a hard matter to determine how to develop that mind to bring out the best there is in it. It's there and only needs developing, and the parents would be foolish to try to make a great musician out of the boy who had the latent ability of a great mechanical engineer, architect or inventor. It's reasonable, isn't it?

Apply the same reasoning to the use of photographic goods. You make an exposure on a film or piece of Velox paper and have a latent image that must be developed in some way before you can see the result of the exposure. You want the best there is in it—all there is in it, and you will not get it if you try to develop that film or piece of Velox paper with a developer you bought because you liked the color of the label on the bottle. The developer must suit the film or paper if you want the best results, just as the teaching must be adapted to the mind of the boy if his best talents are to be developed.

The manufacturer knows the chemical composition of the goods he manufactures and makes chemical preparations to suit. If these preparations are used, the best results will be obtained. That's why the manufacturer not only makes these chemical preparations for sale, but also publishes the formulæ and urges the use of one or the other, that correct results may be secured and his reputation maintained.

The man who makes the "just as good" secret preparation with the pretty label on the bottle, is only interested in selling that one thing. It's the difference between buying the cure-all patent medicine and going to the doctor *who knows*.

When you use Velox paper, use Velox developer or the Velox formula for making your own developer. The same applies to fixing baths and developer for Kodak film.

Give your papers and films the best chance, just as the wise parent gives the boy the best chance. It's reasonable, isn't it?

WEAK NEGATIVES.

If you have negatives that show plenty of detail but are weak, due to their having been under-developed, there is a remedy. Such negatives will make prints full of detail but lacking in strength. The exposure was all right, but they were not developed long enough to give sufficient body to the negative for printing. These negatives may be greatly improved by intensification.

Negatives that have been under-exposed and under-developed may also be improved by intensification, but it must be remembered that in intensifying a negative, you do not increase the amount of detail, you only strengthen what is already in the negative. Nothing but the proper amount of exposure will give you the proper amount of detail.

You no doubt have a few weak negatives that can be improved and made to print much better, and the method of intensification is very simple—re-develop them.

It's just the same as re-developing a Velox print. Get a five cent tube of Velox Re-Developer at your dealer's and follow the instructions. The negative should be absolutely free from hypo, so if you are not sure, it would be best to wash it again to be certain, then proceed as follows:

Place the film or plate in the bleaching solution and allow it to remain until all the black is out of the shadows, rinse well and place in the re-developer. When the former brilliancy of the negative has returned, which will be in a few seconds, place the negative in a hardening solution made of 1 oz. of Velox Liquid Hardener to 16 ozs. of water, or

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

place in an acid fixing bath for a few minutes and wash and dry in the usual way.

The negative intensified in this manner will be brown in color but will be built up evenly and will give you a print of good contrast.

Possibly you have never re-developed Velox, and if not, you will be surprised at the beautiful sepia tones that may be secured so quickly, with so little trouble and at so small an expense. Any grade or surface of Velox may be re-developed, but Royal Velox probably lends itself best to the sepia tone. The rich cream tint of the paper gives a peculiar softness and warmth to the brown tone of the print that is both pleasing and harmonious.

BALD-HEADED LANDSCAPES.

A landscape is not beautiful or true to nature when the entire sky is one vast white expanse of—nothing at all. The fault is usually due to over-exposure, especially when Kodak film is used, for Kodak film has the orthochromatic quality necessary to give exceptionally good rendering of color values.

Instantaneous exposures with Kodak film rarely give blank skies. It is the time exposure given to secure detail in the foreground that causes the sky to be very much over-timed, and the resulting print from such a negative shows no effect of atmosphere or clouds.

The best landscape effects are secured by a combination of Kodak film and the Kodak Color Screen. The Color Screen is yellow in color and has the property of giving the correct tone value to yellows and blues. Blues will come almost white without a Color Screen, because the blue and violet rays of light are almost as strong as the white rays. For this reason the blue of the sky photographs almost white without the Color Screen and there is little distinction between sky and white clouds in the print, hence, the bald-headed landscape.

With the Color Screen, the blue rays of light are greatly reduced and the blue of the sky is as dark in the print as it looks to the eye. The white clouds are brought out in bold relief and the picture is pleasing as well as more true to nature. Yellows, which photograph almost black, are made much lighter and more correct in their relation to other colors, so the advantage of the Kodak Color Screen for landscape work is readily apparent. These screens resemble the Kodak Portrait Attachments and fit over the Kodak lens in the same way.

They require ten times the exposure which would be given with the lens alone, but this of course will never be long, for the average landscape can be given a fairly short exposure.

As the difficulty in securing good cloud effects is greatly due to over-exposure, it is well to be careful not to over-expose in using the color screens. If you have secured good detail in the foreground of a landscape by giving an exposure of one-fifth of a second, you must stop and think what that one-fifth second means. It means that your exposure has been twenty times as great as an exposure of $\frac{1}{100}$ of a second, and with the color screen you will have to give ten times that amount, which will be two seconds, and two seconds is a very short time.

Of course if you have a shutter on your Kodak that works automatically for seconds and fractions of a second, it is a very easy matter to give a correct exposure of two seconds, provided your Kodak is on a tripod or other solid support. You would set the indicator at one second and make two exposures one immediately after the other, but if you have to guess at an exposure of two seconds you are very apt to miss the mark.

Eastman Kodak Company

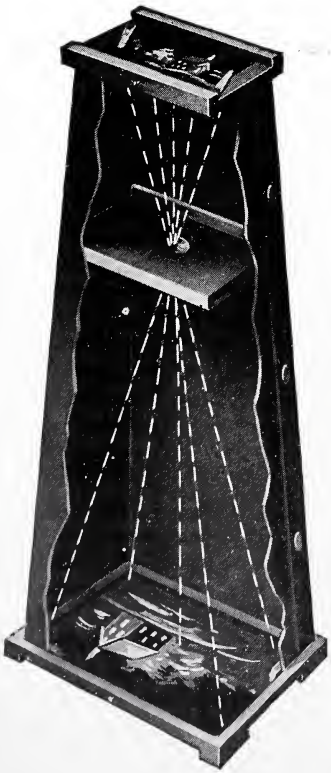
ROCHESTER, N. Y., *The Kodak City.*

In making short exposures where the shutter does not work automatically for seconds or fractions of seconds, set the indicator at B, and a pressure of the bulb opens the shutter and releasing the pressure allows it to close. To make an exposure of one seeond, say "one hundred and one," pronouncing each word and syllable distinctly, pressing the bulb on the first word and releasing the pressure as you speak the last word. The exposure will be very nearly a second unless you speak very slow or very fast. Any number of seconds may be counted off in this way very correctly if the counting is kept up at the same speed.

Kodak Color Screens

THE PRICE

No. 1. For Vest Pocket Kodak, Nos. 1 and 1A Folding Pocket Kodaks, Nos. 2 and 2A Folding Pocket Brownies, . .	$0.50
No. 2. For No. 2A Brownie, ...	.50
No. 3. For Nos. 2 and 3 Folding Pocket Kodaks; No. 1A F. P. Kodak, R. R. Type; and No. 3 Folding Brownie, . .	.75
No. 4. For Nos. 2 and 3 Bull's Eye, No. 2 Flexo and No. 3 Brownie, ...	.75
No. 5. For Nos. 3A, 4 and 4A Kodaks, No. 3A Folding Brownie, ...	1.00
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No. 7. For No. 3A Special Kodak, . .	1.00
No. 8. For Vest Pocket Kodak Special,	.50



Make Enlargements from your Small Negatives with

The Brownie Enlarging Camera

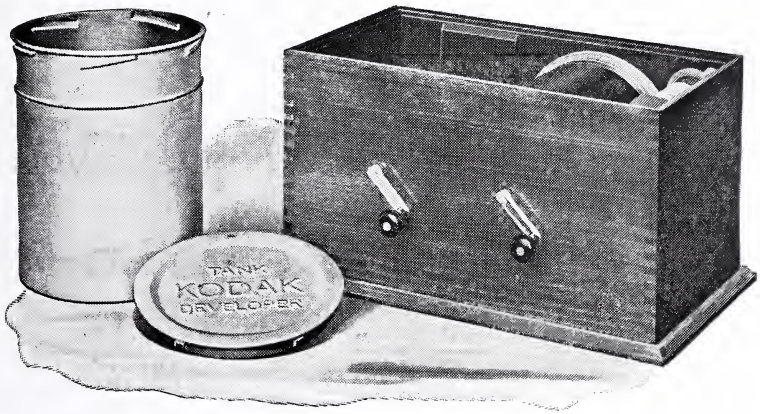
It is simplicity itself. Place the film in the small end, the sheet of Velox in the large end, expose to daylight and develop in the usual way. It's all by day-light.

The Brownie Enlarging Camera Illuminator

makes it possible to make equally good Bromide enlargements on the long winter evenings.

Ask your dealer to show you THE BROWNIE ENLARGING CAMERA and ILLUMINATOR

(3)



ADD ZEST TO PICTURE TAKING AT HOME.

The Kodak Film Tank not only simplifies picture making by eliminating the dark-room—it gives better results, adds greater pleasure and interest to Home Picture Taking.

Film Tank Negatives are the clean, crisp kind that make brilliant, snappy prints possible.

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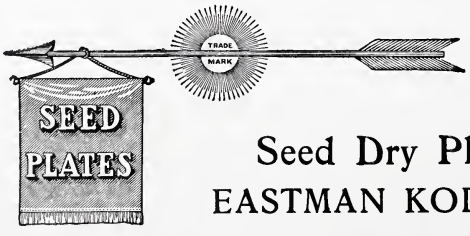
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Seed Quality is Printing Quality

You get it in the negative—the proof of it is in the print.

Straight printing is all that is necessary with a SEED negative. All manner of fudging and local manipulation of the print fails to produce this quality from a poor negative.

SEED GILT EDGE 30, unlike other fast plates, combines extreme speed with the delicate tonal qualities of the slower plate. The price is the same as for the SEED GILT EDGE 27.



At Your Dealers

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EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

HIGH SPEED

and Other Qualities to Match Make Hammer Dry-Plates the Best for Short Days and Weakening Light

Hammer Special Extra Fast (Red Label) and Extra Fast (Blue Label) Plates hold the record of Superiority over all. With the least possible exposure they produce the greatest possible tone and detail. : : : :



Hammer's little book, "A Short Talk on Negative Making," mailed free

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Established 1840. Incorporated 1892.

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Manufacturers of

TREASURY
COMMERCIAL
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BLOTTING PAPERS

Made in Highest Photo. Finish
and Chemically Pure.

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TOZOL

The SIMPLIFIED DEVELOPING AGENT
for PHOTOGRAPHIC PAPERS

If you make your own developer, make it right—make it easy—make it economically.

Just add the sodas, bromide and wood alcohol to an ounce of TOZOL. There's nothing so simple—nothing so good for developing papers.

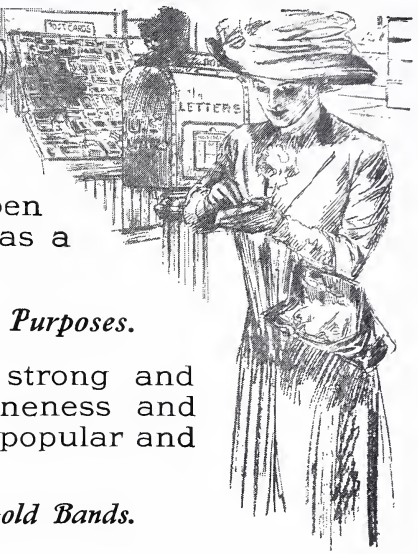
TOZOL costs less—goes further.

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At Your Dealers.

The Dainty





This safety fountain pen is adapted particularly as a dainty style

For Library and Pocket Purposes.

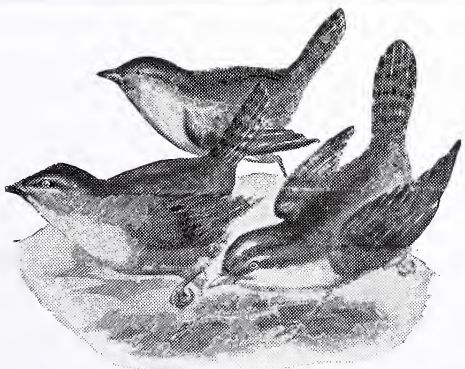
Delicate, yet very strong and durable, and of that fineness and pattern which makes it popular and appropriate.

Inlaid Pearl, with Chased Gold Bands.

PRICE $2.50

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HIGHLY ABSORBENT CHEMICALLY PURE

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DO YOU USE

"World" Blotting

THE ORIGINAL PHOTO-FINISH

IT IS ABSOLUTELY THE PUREST AND
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If you don't want your Prints to Lint and Stain, you must use
"PHOTO-FINISH WORLD"

IT IS MADE BY

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CRAMER'S Special Sulphite and Carbonate

Sold Seven Years. Tons used each year, and not ONE Complaint

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Hurd's Lawn Finish is the finest type of the fashionable fabric papers. Its quality is the best; it is beautiful in appearance, and the writing surface is exceptionally pleasing.

Hurd's Suede Finish represents the best quality in the medium smooth finish, and is much in fashion. It is also the finest wedding paper made. We carry a large stock of these fine papers.

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We use both Cyko and Argo for this work
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Your printer will know

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GOERZ VEST POCKET TENAX, $1\frac{3}{4} \times 2\frac{5}{16}$
GOERZ COAT POCKET TENAX, $2\frac{1}{2} \times 3\frac{1}{2}$

Cameras which you can take with you, ready to seize every opportunity, on a thousand occasions when ordinary hand cameras must be left at home. Fitted with direct view finders, accurate focusing adjustments, and compound shutters giving a maximum speed of 1/250 of a second. The last word in pocket camera construction.

The **GOERZ ANGO,** four sizes, and **FOLDING REFLEX,** 4 x 5, both with improved **focal plane shutters,** should interest all ambitious amateurs. The **GOERZ MANUFOC TENAX** is the strongest adjustable bellows camera on the market.

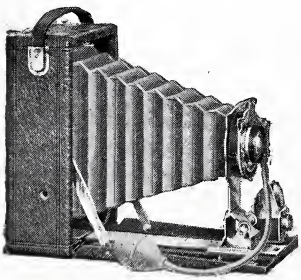
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317 East 34th Street, New York

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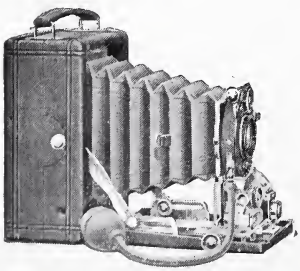
It is indeed a merry Christmas for the one who gets a



Premo Jr. No. 0
Pictures, 1¾ x 2⅝, $1.50



Film Premo No. 1
Pictures, 3¼ x 5½, $12.50



Filmplate Premo Special
Zeiss Kodak Anastigmat Lens *f*.6.3
and Compound Shutter
Pictures, 3¼ x 4¼, $54.00

PREMO

Decide that Christmas question of yours right here. There's someone you wish to please very much — yet you don't know just what to give.

But a Premo makes it easy. It will be welcomed alike by a boy or girl, a man or woman, of any age.

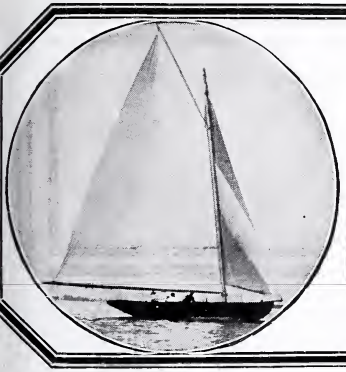
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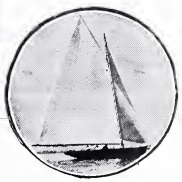
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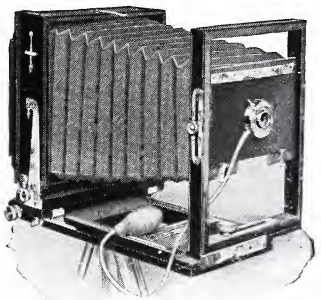
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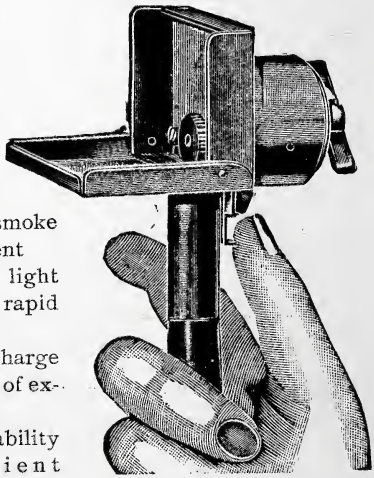
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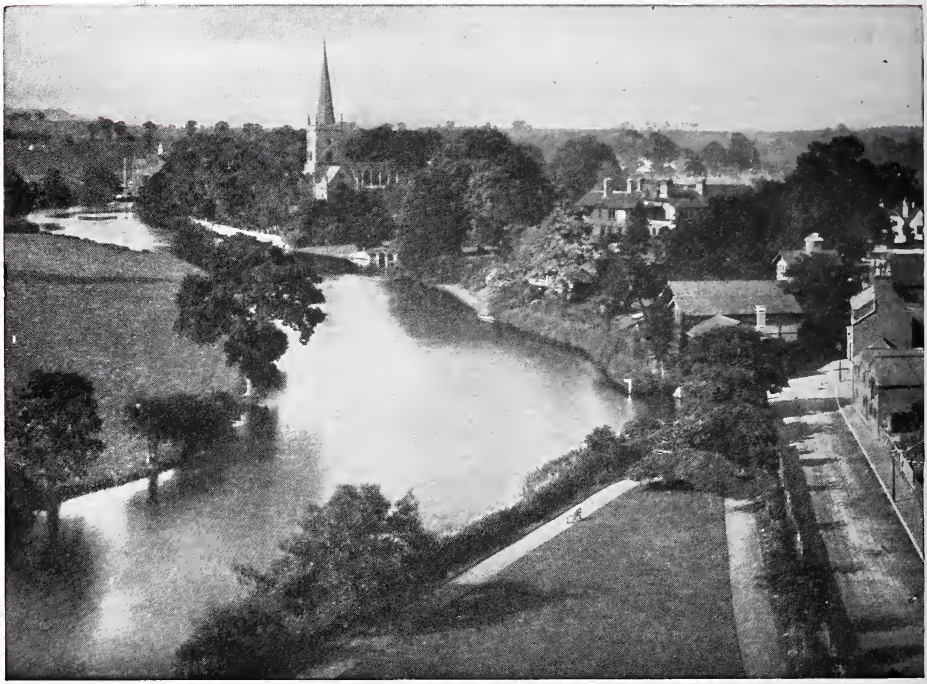
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OLD FENCE IN WINTER *W. E. Bertling*

The Photographic Times

With Which Is Combined

Anthony's Photographic Bulletin

VOLUME XLIV DECEMBER, 1912 NUMBER 12

SOME WINTER SNAPSHOTS

BY THE EDITOR.

With Illustrations by the Author.



ON A fine day last winter, during an annual outing to the snow-clad hills of New Hampshire, the editor of this magazine donned his snow-shoes, and, with camera slung over back, sallied forth in search of the picturesque.

He did not have long to seek, for interesting and highly pictorial subjects for the camera abounded on every hand. The young people were "bobbing" and tobogganing on the steep hillside in front of our winter home. Here were subjects for the quickest shutter and the most sensitive plate or film.

The initial letter illustration shows "Nick," the ever-popular Dartmouth graduate skiing at a tremendous rate of speed. Our lens was full open, and the shutter at its fastest; probably the exposure was not more than one one-hundredth of a second; but the sense of great speed is shown in the figure of the man by a slight lack of sharpness in his outline. .

"A Mile a Minute" is not an exaggeration, as a friend standing by can vouch, who employed an accurate stop-watch in timing this descent. Here, too, the great speed of the moving toboggan is suggested, as it should be, by some lack of definition in the outline of the figures. We think it is a mistake to speed up a shutter to such an extent that moving objects are shown practically sharp, as if petrified in the act of motion. Great speed can always be suggested by some slight uncertainty of outline in the picture, which is always the case when the eye views a swiftly-moving object.

The illustration entitled "Bobbing," is a slow, instantaneous picture. The double runners were at the top of the hill, and were just starting when the exposure was made, so that a slow speed of shutter was all that was re-



A MILE A MINUTE.

quired. "Tobogganists" was not an instantaneous exposure at all, but is a posed picture, as we presume our readers will find out for themselves from various internal evidences in the picture itself.

"Watching the Camera" was a snapshot of stationary figures; it was made for the benefit of the cunning little girl in the foreground, who, in bloomers and cap, is an indefatigable tobogganist during the coldest days of winter. The thermometer stood below zero the day this picture was taken.

"The Ice-bound River" and "The Wood Road in Winter," are both snapshots made with a slow, instantaneous exposure to save the cloud effects and preserve the characteristic atmosphere of a typical winter day in northern



TOBOGGANISTS.

New Hampshire. The latter shows the sunlight falling on the snow between the trees; but, by slow development, the reader will observe that the contrasts are not strong and chalky, as frequently happens in snow pictures when the sun is shining.

The river view, with the mountains in the distance, was particularly satisfactory to the maker, because it looks as the scene does in nature. The distant hills are clearly defined, and have the soft outlines which they actually show from that distance. There is a slight lack of definition in this picture, which is also characteristic of a winter landscape. It looks cold, as it was, and slightly melancholy; though on the same day the other pictures were taken,



THE WOOD-ROAD IN WINTER.

when it can be seen, the sun was shining brightly, making the more distinct shadows and effective contrasts.

* * * * * *

As I slowly snowshoed homeward that winter afternoon, when it became too dark for further photographing, the "full-orbed" moon rose majestically over the crystalline hills in the east and flooded the darkening valley with a wan, cold light. The ruddy glow of early evening lights were faintly seen in the farmsteads below me, and made a pleasant impression of home and comfort. The wind had fallen and a death-like stillness enveloped the face of Nature. So still it was that the stillness could almost be *heard,* as



WATCHING THE CAMERA MAN.

Thoreau has quaintly said. The barking of a farmer's dog could clearly be heard over a mile away. Even the falling of a twig in the yielding snow made its own distinct sound. But for the most part only the crunch, crunch of my own laboring snowshoes was the sound that greeted my listening ears.

The sight of my own welcoming fireside was a grateful one as I emerged from the winter woods and drew out on the hillside above my own home. But here I must pause to marvel at the beauty of that wonderful moon * * * ! And then rise the ever-present thoughts of Her, who, alas, will not be within the shelter of that ruddy glow to welcome home the returning father * * * .



BOBBING *W. I. Lincoln Adams*



THE ICE-BOUND RIVER *W. I. Lincoln Adams*

HIGH EFFICIENCY IN LITTLE CAMERAS

BY CHARLES F. RICE.



ONE would prefer to work with a little "vest pocket" camera instead of with a large, heavy outfit, if as good results could be obtained with the little camera.

The term "vest pocket" as applied to cameras will be used in this article in a literal sense, and that will limit our consideration to those little cameras that take a picture less than 3¼ x 4¼ inches. The real vest pocket machine takes a picture less than 2 x 3 inches. There have long been highly efficient cameras in the 3¼ x 4¼ size, but the most efficient types are far from fitting the vest pocket. The writer tried out a 3¼ x 4¼ reflecting camera not long since, and his arms ached from holding it up before a dozen exposures had been made.

My object is to show what is required in a camera readily carried in the vest pocket to give practical average results equal to the output of a 5 x 7 camera, and to demonstrate that the little camera is at least in some respects more capable than its big brother.

Since enlarged prints from small negatives have become so easy and inexpensive to make, the natural tendency has been toward reduction in size of apparatus, for as I said in the first place, no one is going to lug around a heavy outfit from choice, if he can get as good final results from a little camera that is convenient and easy to carry. The prime requisite for satisfactory enlargements is that the little negative shall be really sharp.

With a cheap single lens of fixed focus such as is ordinarily provided with small cameras, you are not going to obtain a sufficiently sharp negative to stand much enlargement, without using a small stop in making the original exposure. F 16 is the largest effective aperture employed with a single lens, and pictures taken with that opening in a single lens are apt to show undesirable lack of definition around the margins of the picture when enlarged. Even with a rectilinear lens, F 16 will not yield enlargements that are any too sharp. Now a stop as small as F 16, from the fact that it so cuts down the illumination, is going to narrow the limits within which a hand camera can be used. Bright sunshine must prevail, and the hour must be neither too early nor too late to successfully take "snap shots."

The remedy is an anastigmat lens which will cover the picture sharply wide open—F 6 or larger. F 6 is six times as fast as F 16.

It would be enough to fit an anastigmat to your inexpensive little camera, but the construction of such little cameras heretofore on the market is not substantial enough nor are the various adjustments sufficiently precise for an anastigmat. The axis of a lens working at as large a relative aperture as



BEACH SCENE—1/50 second, F/11, Seed 30 plate.

F 6 must be exactly at right angles with the film surface—in other words the front and the back of the camera, when extended, must be exactly parallel and rigidly held so—or the accuracy of focus is going to be upset.

So far we have shown, then, that two requirements for a really efficient little camera are a high-class lens and camera construction sufficiently accurate and substantial to make the most of the lens' good qualities. The shutter, too, in order to get the advantage of your anastigmat's speed ought to be of a more efficient type than the well-known "TBI" or the inaccurate valve shutter; and some provision must be made for focusing adjustment. There actually is no such thing as "universal focus," although the shorter focus the lens is and the smaller the stop used, the nearer we come to a practical universal focus. This will be dealt with further on in discussing depth of focus. However, pictures taken with a lens opening as large as F 6, with the idea of final enlargement, should be accurately focused to get the best results.

I have used a great many words to say that to be really capable, a litttle camera must have as good quality of material, fitting and equipment as go into a much larger outfit—in fact, the fitting of parts and accuracy of adjustment in a very small camera must be more precise if anything.

Obviously you cannot expect to buy a camera of this type for a dollar or two. And it is probably because the manufacturers have hesitated to make a costly venture that until within a few years the only very small cameras on the market have been little more than toys—of unsubstantial construction,

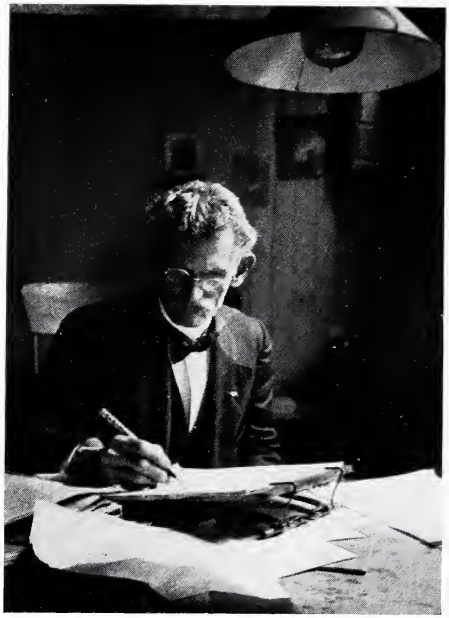


COUNTY FAIR—1/75 second, F/11, Sigma Plate.

with inefficient lens and shutter equipment. Still these little cameras have met with a ready sale because they *were* small and therefore convenient to carry—in spite of their inefficiency. Of late, camera makers on "the other side" have wakened up to the fact that serious photographic workers are ready and anxious to buy a really good little camera, and there are various European models on the market today. There are signs that American manufacturers are waking up too.

I went into a New York camera shop the other day, and the man behind the counter showed me two cameras of about the same size—one of English manufacture with an F 4.5 lens, selling for something over $100; the other of German make with a superb little anastigmat working at F 6.8, selling for $75. Both had compound shutters working up to 1/250 second, accurate focusing adjustments, ground-glass attachments, direct vision view finders, etc., fitted to use either plates or films. Either camera when closed would slip easily into a vest pocket, and was light enough and small enough to be carried there all the time, as a pocketbook might be, without inconvenience.

I use a Goerz Vest Pocket Tenax and find it a very thorough and efficient camera, easily operated and making most excellent pictures, and at the same time very sharp. The camera itself is so very small and light that it is carried in the vest pocket without any inconvenience whatsoever. The most important part, its lens, is a Dagor, F 6.8, fitted to a compound shutter, which works at time, bulb and various indicated speeds from one second to 1/250, and the speed may be regulated to a nicety either at or between the indicated



MAN AT TABLE, WRITING—1/8 second, F/6.8, Sigma plate, portrait attachment.

speeds. For instance, the markings are 1second, ½, 1/5, 1/10, 1/25, 1/50, 1/100, 1/250, but it is a simple matter to get approximate speeds of say, ⅛ by setting the indicator between 1/5 and 1/10, or 1/15 between 1/10 and 1/25, etc. One great advantage of this form of shutter over the ordinary valve shutter is that there is no point at which there is a sudden jump from slow to high speeds. The slow 'snaps" between, say, ⅛ and 1/25 are very very useful in poor light. To illustrate: the picture of a man writing at a table was taken at ⅛ second, camera held in hand, ordinary window light, Sigma plate. The subject was entirely unaware that his picture was being taken.

I rely altogether on plates with this camera, but it will take film pack with an adapter. These plates can be developed by the tray method, but the tank is much more convenient. For use with orthochromatic plates I have a five-times ray-filter of the Goerz Co. make.

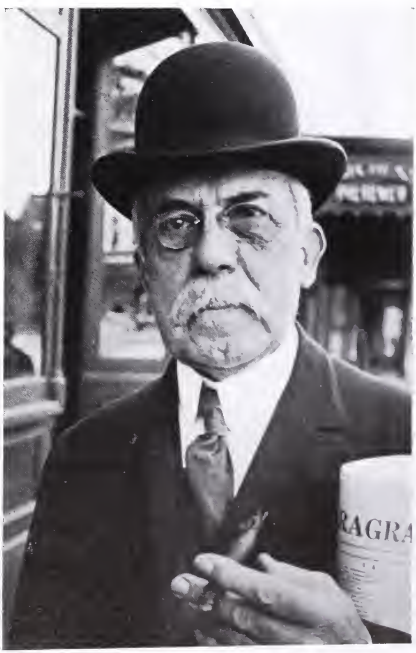
I suppose I need not argue the matters of lightness and compactness in favor of the little camera. These qualities and their desirability are self-evident. But there are a few points, not so readily apparent, in which the vest pocket camera is superior to its larger brethren.

Plates are preferred to films, it is safe to say, by most serious workers, for various reasons. The plate offers a more flat and unvarying surface for the image, which is a matter of importance when using large lens apertures. Plates keep better than films, probably because of the way the latter have to be packed, with the sensitive surface in contact with paper. Plates may be obtained in wide variety—some best suited for landscape or orthochromatic work, others of extreme sensitiveness for speed work; whereas film generally speaking comes in but one grade, somewhat orthochromatic and of fairly high sensitiveness, a very useful and serviceable combination for all-round work, but not nearly so color-sensitive as the best ortho plates, nor nearly so fast as the fastest plates. Now the objections of weight and bulk, that apply to plates in larger sizes, disappear when the plate is less than 2 x 3 inches. A dozen of the little plates take up no more room nor do they weigh any more than a spool of film.

Cost of materials is less in small sizes. This is an important item. The user of a very small camera will not want to enlarge all his pictures, but even those that he does, if he enlarges them himself, will cost less than pictures of the larger size taken direct, for there will be no large negative.

Depth of focus, or depth of field as the lens makers prefer to have it called, is greater in lenses of short focus. The shorter focus the greater the depth of field. With a 3-inch lens and stop F 6.8, all objects between five feet and fifty feet distant from the camera will be practically sharp when the focus is set for nine feet; whereas with a 7-inch lens used with the same relative aperture, and focus set for nine feet, only objects between eight and ten feet away from the camera are in focus. This calculation is taken from the lens-maker's tables and refers of course to the sharpness necessary for contact printing. The advantage is not so apparent when we are dealing with pictures enlarged from small originals. But I have read somewhere, and I am going to test it out for myself some time, that a direct picture taken 5 x 7 with a lens of eight inches focus and an aperture of F 8, will not show as great depth as a 5 x 7 enlargement from a very small picture of the same subject taken with a lens whose length of focus and working aperture bear the same relation to the small picture that the 8-inch lens bears to the 5 x 7.

Finally, and most important I think, is the great availability of a camera that without inconvenience can be carried in the pocket at all times ready for use at an instant's notice. It always seems as if the best picture subjects present themselves when the camera is left at home. But with a capable camera always ready in your pocket, nothing that is worth taking can escape you. It was that way, for instance, with the picture of the sunrise over the water. I had passed near this point I don't know how many times before, in the ordinary course of events, and thought what a good picture it might make if the conditions were right. Once or twice I lugged along my 5 x 7 and tripod, in anticipation of such happy conditions; but when I got there—there was no picture. This morning I had my little camera in my pocket—since I bought it, it has been there ready—without any particular thought of pictures. When I reached the place and saw the sun going behind the cloud, it took but a minute for me to get out the camera, screw on a ray filter, and "Click!" I had it. And so it has been with many other pictures that never would have been taken with a large camera because that apparatus would not have been at hand. I got them with the little camera because I always have that with me ready. The little camera is very inconspicuous, too. People don't know what you are up to, usually, even when you point the



OUTDOOR PORTRAIT OF MAN HOLDING NEWSPAPER—1/50 second, in the shade, F/6.8, Sigma plate, portrait attachment.

camera right at them. "Click!" You've got them before they know you are taking a picture.

Whether the high-class, high-price little camera is worth the money it costs depends entirely on the results. I have sent with this article a number of direct contact prints from negatives taken with such a camera as I have described, also 5 x 7 enlargements from the same negatives, and I will leave it to the reader to judge whether the enlargements are not as good as could be expected of direct prints of that size.

It is the writer's personal opinion that the day of the very small camera has dawned, and that the next few years will see a large increase in their use.



FIVE NEWSBOYS SEATED ON STEP—1/100 second, F/6.8, Sigma plate.



LATE AFTERNOON

Harry A. Brodine

WOODLAND BYWAYS

WILLIAM S. DAVIS.



WOODLAND byways—how many pleasant rambles at all seasons of the year these words bring to mind!

In early spring, when pathways and clearings in the forest are carpeted with the soft yellow and brown leaves of the previous year, and the light colored saplings and grey trunks of larger trees are all enveloped in the luminous violet-grey atmosphere so peculiarly characteristic of a warm day in springtime, a walk reveals very delightful harmonies of delicate tones and colors.

When trees and plants begin to awake from their winter sleep interesting changes occur with astonishing rapidity, and on returning to a favorite haunt after an absence of only a few days one will often be taken by surprise at the transformation. Look at that clump of trees a little off the path and note the change in the fronds of the ferns clustering around them, which have expanded into masses of feathery plumes, nodding gracefully whenever a passing breath of air caresses them, while the last time we were here their stems were curled up as tightly as the proverbial caterpillar. The leaves, too, have made their appearance, already clothing many of the trees in a diaphanous mantle, where before only little knob-like swellings on the twigs indicated the presence of the budding leaves, and soon the woods will be one mass of glowing, shimmering, yellow-green foliage, casting across the highways and byways magic shadow shapes that come and go in varying patterns as the warm southerly breezes sing through the tree tops.

Color effects now grow stronger and the velvety richness of shadows increases with the thickening of foliage and undergrowth as the summer draws nearer. To the artist the subject has become a study in broad tones rather than lines, and new beauties are presented to the eye, whether it be the vista of a sunlit glade seen through a frame of dark foliage in the foreground, or a dreamy vision on a foggy day when the flat masses of drooping branches fade away into space.

On a hot summer day it is always a refreshing change to enter the cooling shadows after a walk through open fields where objects seem to pulsate in the waves of heated air, and the principal sounds are the droning of bees. The cheerful notes of the birds in animated conversation and the restful colors of a forest are at such a time in greater contrast to an open landscape than at any other season. To see the most subtle effects in mid-summer,



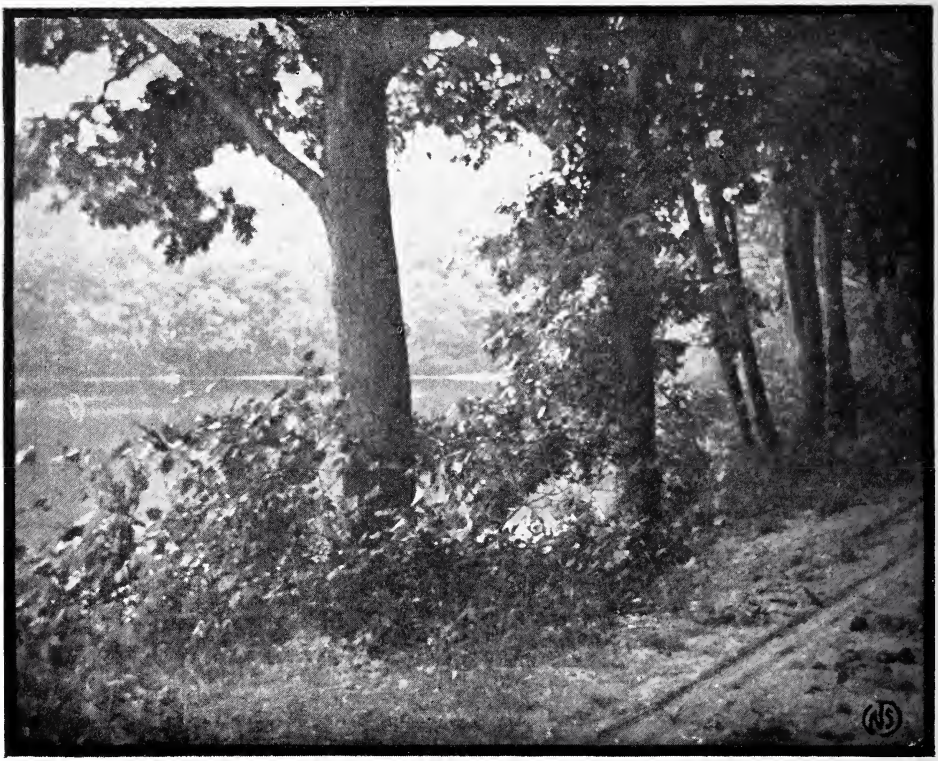
SUNLIT WOODS *Wm. S. Davis*

however, one should visit the woods on a misty morning before the first dewy freshness evaporates, for, through the combination of soft sunshine and moisture-laden atmosphere, which form a translucent luminous veil, both high lights and shadows are reduced in strength, and the various "planes" of the composition are indicated most effectively.

A walk on a crisp autumn day, when the leaves are turning color is always a pleasure for the variety of rich tints presented to the eye, but from a photographic standpoint special care is necessary to avoid disappointing results, as the glow of brilliant color often makes the tonal contrasts appear greater than they really are to an untrained observer, so it is most important to separate *color* contrast from *tonal* contrast, for without sufficient of the latter it will be impossible for the camera picture to suggest the former.

Finally come the winter days, when the leafless multitude of the forest stand so silent amid the snow which weighs down branches and bushes, producing delicately traced patterns of cobweb-like fineness which transform the scene as far as the eye can penetrate into a fairyland of subtle harmonies, emphasized at intervals by a bold touch as some storm-beaten monarch of many winters looms up against the snow-laden undergrowth.

So much for the possibilities of our subject, which abounds in opportunities for picture making at every season of the year. Now a few suggestions as to the technical methods of dealing with some of these beautiful *motifs* may prove of assistance to inexperienced workers.



THE LAKE PATH *Wm. S. Davis*

In the first place I might say the style or quality of apparatus is less important in this class of work than for many other subjects, as high speed exposures and microscopic definition are not called for, and quite as artistic work can be done with a single achromatic lens as could be accomplished by using one of the most expensive modern lenses. Some of my best studies have, in fact, been taken without any lens at all, a "pin-hole" being used instead.

As a matter of convenience in seeing the composition on the focusing-screen, a "view" or folding hand camera for plates is best adapted to careful work, and a tripod or some other support for the instrument is required, as time exposures are the rule, exceptions being few and far between.

If, for any reason, the tripod is not at hand when needed one should always look around before making the exposure to see if some substitute cannot be found. Sometimes the camera can be pressed against the trunk of a tree while exposing the plate (if a tree happens to be in the right spot for the purpose) or a "gypsy tripod" improvised from three sticks tied together near one end and the camera rested on top. On one occasion, when an opportunity unexpectedly presented itself, the writer was enabled to make a short time exposure by simply resting the camera upon a stick broken to



APRIL WOODS *Wm. S. Davis*

the right length, steadying it at the same time against the body and holding his breath while exposing.

In arranging a scene on the focusing-screen try to keep the composition simple. Especial attention is required when the trees are devoid of foliage not to produce a "scratchy" effect by giving undue prominence to the net-work of bare branches. Perhaps the simplest way to overcome this difficulty is to concentrate interest upon the lower portion of one or more good-sized trees in the foreground, and work when the atmospheric conditions are such as to soften contrasts in the background. When the nearly objects are more in shadow than their surroundings this fact may also be taken advantage of by giving a very full exposure, which will help to subdue the distance by decreasing the contrast without greatly altering that of the foreground.

In summer the first impression one is likely to receive on entering the woods is a feeling of repose produced largely by the restful qualities of soft masses of foliage, and if we would convey a similar impression in the finished picture the composition must be kept restful in character by avoiding harshness of contrast and a scattering of small patches of light and shadow all over the picture space. Generally, early morning or late afternoon is the best time to work, as the light is softer and the masses of tone in a subject are broader than near the middle of the day.



WILD FERNS *Wm. S. Davis*

When pictures rather than records are desired it is well to avoid extremely sharp definition. This does not mean to be careless in the matter of focusing, however, for more care is necessary to obtain just the degree of softness wanted than would be required to secure perfect sharpness in every part. In the majority of cases it is best to focus upon the most important part and then regulate the size of diaphragm until the general effect seems to be satisfactory. If it is desirable to have a certain amount of diffusion throughout (similar to the quality of definition given by a "pin-hole"), this can be secured best with an ordinary lens by stopping down to about F 22, and then throwing all the objects slightly out of focus.

Color sensitive plates will be found much superior to the ordinary kind in translating the colors of the forest into their relative values in monochrome, and if of the nonhalation variety so much the better. Most of my wood scenes have been made on Cramer's Inst. Iso. plates, backed with black gummed paper, but I have lately secured some very satisfactory negatives on their *Trichromatic* brand.

Where little or no sky is included good results can be obtained in spring and summer without a ray filter, but in autumn a fairly strong screen is of great value in giving a better idea of the visual brilliancy of the rich color, and in a snow scene its use enables one to hold the quality of the snow while exposing for the dark portions of the view. In fact, there is hardly a subject to be found in the woods that would be injured by the use of a three

to four times screen in connection with color sensitive plates at any time of year, so it is a good plan to use one whether it seems absolutely necessary or not.

Finally, make it a rule to expose fully for the deep shadows and develop for the high lights. Without sufficient exposure all one's labor will be in vain, and if full detail does not appear in the shadows (using a developer of moderate strength at normal temperature) by the time the highest lights are correct one can take it for granted the plate was under-exposed.

The length of exposure necessary depends not only upon the strength of the light but also the range of contrast present and should be increased practically in proportion to the degree of increase in the tonal scale.



AT CLOSE OF DAY — *W. E. Bertling*

LONDON JOTTINGS

BY F. C. LAMBERT, M.A.



HOW can one make the best of an under-exposed plate? This is a question which we all have to tackle from time to time, for the simple reason that it was not possible to give a sufficient exposure, *i. e.,* such as would with normal development give a satisfactory negative. The light perhaps was too poor to permit the hand to hold the camera still for a sufficiently long period, or the object was moving in such a way that we had to choose between a blurred or an under-exposed image. This question being under discussion among a few experts last week, naturally opinions varied. Three methods were advocated:

First method. Use a developer strong in alkali but weak in reducing agent and allow plenty of time. For instance, with pyro soda we may double the alkali and halve the pyro. The following formula may be taken as typical: Water 4 ozs., soda sulphite (crystals) 80 grs. or Potassium meta-bisulphite 20 grs., soda carbonate (crystals) 150 grs., pyro 2 grs. Bromide will not be required with most present-day plates, with pyro-soda.

Second method. Use a developer which brings out the image all over the plate quickly, *i. e.,* before the high limits have gained much density, fix, wash, and intensify the plate. As an example one may quote the following: water 5 ozs., soda sulphite (crystals) ¼ oz., soda carbonate (crystals) ¼ oz., metol 5 grs.

Third method. Soak the plate in a fairly quick acting developer until the image begins to show; remove it, dip it in plain water for half a second and then surface-dry the plate and put it in a dry dish, cover it over and let it rest for some time. The image will slowly grow for a while and then cease changing. The process is now repeated until sufficient density is obtained. This method should only be used with non-staining developer. Rodinal is suitable, of strength, say 25 minims per oz. of water, or the following is worth careful trial: water 2 ozs., potassium meta-bisulphite 12 grs., paramidophenol 2 grs., caustic soda 6 grs.

A word of caution is needed in all these plans, viz.: the plate should be manipulated in a quite safe light—and the less of that the better. A moment's thought will show us that our aim is to develop very feeble light effects. If to the feeble light action in the camera we add any dark room light influence we are going to develop image light plus fogging light. One thing we must not do, viz.: develop out a negative having overstrong contrasts. It is better to err on the side of soft than harsh contrasts.



EARLY MORNING IN THE PARK — *Harry A. Brodine*

The optimum degree of enlargement. Serving as judge recently at a well-known exhibition which was characterized by a large proportion of enlargements, it was again forced on my attention that very few workers adequately realize the fact that each subject has its own best degree of enlargement. This is a vastly important point in these days of the all-but-universal small camera and enlarged print. The widespread use of the fixed focus enlarger, with its fixed degree or scale of enlargement is one factor in the case. But it is a solid error to enlarge all your ¼ plates to one size, say 12 x 9 or whatever it may be.

Best proportions. Not only so but one may here add, by way of reminder, what doubtless every reader knows, viz.: that each picture has its own best proportions of length to breadth. Another curious and not easily explained point is that there is a better and a worse way round to most pictures. That is to say by enlarging first in the ordinary way, and again when the negative is turned with its glass side towards the print we get a right and a wrong way round print as compared to the original. But for the majority of pictorial—as opposed to topographical—results it is of no consequence which way round the picture is; and not seldom it happens that the wrong, *i. e.,* contra-natural, way makes the better picture.

How is one to find out the best degree of enlarging, the best proportions, and the best way round? My advice is this: Make a contact lantern slide from the small negative, and then put this in the enlarger, which I assume

is not one of the fixed focus kind, but one which enables the worker to see the projected image on a focusing screen of white paper. Projecting the slide (*i. e.,* positive) on to this white screen enables us to try various tentative trimmings by cutting off (shading) this or that part by means of a couple of L-shaped pieces of card, held between the positive (transparency) and focusing screen. We can, of course, try by inspection various degrees of enlarging also; and which is the better way round of the picture.

The best way round of a picture. I think it will be found that in a very broad and general sort of way most of us prefer that way round which has the chief converging lines, or chief focus of light and shade interest somewhere on the right hand half of the picture. This, perhaps, is connected with the fact that most of us use the right hand for drawing and find it easier to draw a line from left to right than in the opposite direction. But this is only a very tentative suggestion.

Up or down hill effect. I have recently been carrying on some experiments commenced years ago in connection with the interesting subject of representing a road, pathway, etc., which is running up or down hill, as the case may be. I can only summarize very briefly here the leading points arrived at. First, to get a telling up or down hill effect it is essential that something in the print should give the idea of horizontality, *e. g.,* horizontal lines of building, the sea, horizon, etc. This gives a mental standard. Parallel lines apparently converging to a point above or below this horizon standard give an up or down hill suggestion—as the case may be.

Position of head. Next, a satisfactory impression for an up or down hill effect is materially aided by the right position of the head. When looking at an uphill path usually the head is tilted a little backwards. So to get the right effect from a similar picture it aids if the picture is placed above eye level, so that the head is unconsciously tilted backwards. Similarly to get a down hill picture it its best it should be viewed with the head tilted slightly forward. There are certain physiological considerations which support the foregoing general principles, but too technical to enter upon here. But that there is "something in it" the reader can assure himself by making a few experiments by viewing up and down hill picture effects in different positions. Unfortunately it has for generations been the custom to hang all pictures on our house walls at or above eye level, so by long conventional usage we have got into cast-iron grooves, but that in no way justifies the foolishness of the system.

The acid fixing bath has for some time past been steadily gaining favor and practical support among photographers, but unfortunately through ignorance or carelessness concerning its preparation some trouble has arisen. Therefore, it may serve a useful purpose if the principles underlying its nature and preparation be set forth in simple terms. Most workers know quite well that if we add to a solution of hypo a few drops of hydrochloric acid, in a short time the mixture becomes opalescent, then milky, and, finally, throws down a light colored deposit of sulphur. If this comes into intimate

contact with the silver of our negative or print, silver sulphide is likely to be formed, and this is a highly undesirable substance in this connection. If we use several other acids, *e. g.*, sulphuric, acetic, tartaric, citric, the same thing happens. But there is one acid, viz.: sulphurous, which, if added *in the right way*, does not bring this deposit of sulphur. In other words, if soda sulphite be present when sulphur is set free this sulphur combines with the sulphite. Nevertheless, sulphurous acid cannot be used alone, as it oxidizes to sulphuric acid, which in turn reacts on the hypo, decomposing it and setting sulphur free.

The practical upcast of the matter is to proceed thus: The soda sulphite and hypo are dissolved separately. The soda solution is then acidified by the addition of acid and then the two solutions mixed. The following formula is typical: (A). Hypo 4 ozs., water 10 ozs. (B). Soda sulphite ½ oz., water 5 ozs., sulphuric acid 20 minims. Add B to A and add water to make a total of 20 ozs.

The alkaline bath, on the other hand, is strenuously defended on sound scientific lines by various experts, including Mr. Chapman Jones, who gives the following formula: Hypo 4 ozs., soda carbonate (crystals) 20 grs., soda sulphite (crystals) 100 grs. Water to make 20 ozs.

On behalf of this bath it may be urged that so long as any staining which may arise is kept in an alkaline condition it is soluble and so removable by washing in plain water. Also, there is no risk of decomposing the hypo and freeing sulphur by acid.

On behalf of the acid bath it is urged that it keeps free from discoloration and so does not stain. Also that bromide prints can be left in an acid bath for an hour or more without any loss of detail.

Against the acid bath it is urged that as it keeps clear for such a long time there is a real risk of its being worked too long.

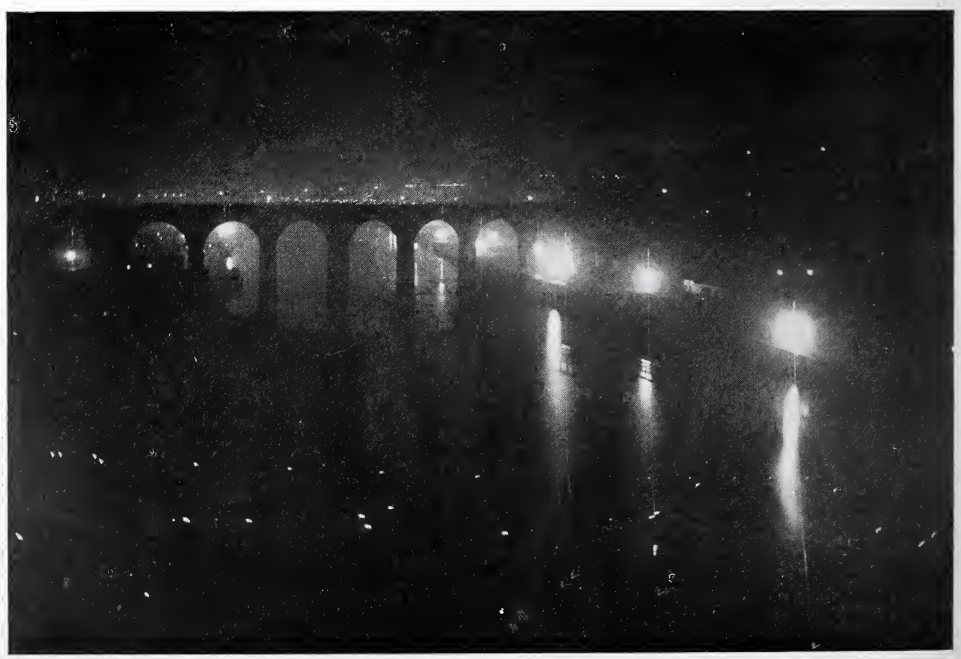
Halation, as every photographer nowadays knows, is of two kinds, viz.: that caused by the incident light spreading in the thickness of the film, and that caused by light penetrating the film, the supporting glass, being reflected by the glass and returning to the underside of the film. The former kind can to some slight extent



FERNS *W. I. L. A.*

be reduced (removed) by rubbing with a clean rag and methylated spirit. The latter and usually most serious form can be largely quenched by backing the plate with some dark (*i. e.*, light absorbing) material in optical contact with the glass.

To meet the demand for backed plates the manufacturers now issue plates already backed. But, alas, there is much in a name, and some of the backings—to put it mildly—are not absolutely perfect. A few days ago an old hand gave me a tip for dealing with especially trying cases. He takes ordinary French polish (the basis of which is shellac and methylated spirit), dilutes this with several times its volume of methylated spirit and then makes it into a thin cream with fine rouge. This is brushed on the glass side of the plate, which may be put into the slide at once, and the backed side overlaid with a piece of black tissue paper and used right away. The backing is cleaned off with a piece of rag or sponge moistened with methylated spirit. If neither French polish nor rouge be conveniently at hand, one can get a quite efficient substitute by dissolving shellac in methylated spirit and mixing with finely ground burnt sienna. All three ingredients are obtainable at places that here we call "oil shops." There is no advantage in laying on a thick coating. The points to note are, first, good optical contact and, second, an even coating without missing small patches of the glass. Streakiness should be avoided as far as possible.



AT NIGHT



HIDING *L. C. Bishop*

Editorial Notes

OUR specially designed Christmas cover is by our good friend and contributor, William Steeple Davis, who is an expert designer and artist, as well as a talented pictorial photographer. It carries cordial Christmas greeting to all our readers, and the very best of wishes for the New Year.

IT IS a very great pity that we cannot all agree as to some general system in the writing of photographic formulæ, as the present muddle often affords various stumbling-blocks in the paths of those who are not familiar with the slipshod customs of photographers. Thus we read such remarks as, "Use a 50-grain bath of ——," where this may mean fifty grains of solid per ounce or per pint (twenty ounces) of water, according to what the solid may be. Then we often use a 60-grain dram from the apothecaries' units and an avoirdupois ounce of 437½ grains. Again an ounce of water weighs 437½ grains, but is subdivided into 480 minims. Sometimes formulæ are given in parts, some of which may mean by weight, others by volume or measure. Fortunately, the patron saint of photographers, whoever he or she may be, generally so arranges matters that these differences do not often matter very seriously.

SERVICEABLE secondhand lenses may at times be picked up at small cost, but unfortunately they are often minus their "stops." This is not a very serious matter to one who can use his fingers, as quite serviceable stops can be fashioned out of sheet brass of about the thickness of an ordinary visiting card and a pair of nail scissors. First of all, ascertain the focal length of the lens by focusing a distant object and then measuring the distance between the stop slot and ground glass. Divide this into eight equal parts. This gives, quite near enough for all practical purposes, the diameter of the F 8 stop. Half this diameter is F 16. Double the F 8 diameter is F 4, and so on. To ascertain the F 11 diameter draw at right angles two lines each equal to the F 16 diameter. Join the ends of these lines. This third line gives us the diameter of stop F. 11; half this is F 22, and so on.

IT IS common to speak of ordinary ortho-plates as "yellow sensitive," but one may doubt the correctness of this. In some, possibly most, cases it would be better to term them "green sensitive." At any rate, it is usually their green sensitiveness that is their more important quality. The

majority of things we call yellow owe their color to their power of reflecting green and red rays. A simple experiment may help to make one realize this. Take a thin petal from a yellow flower—that of a sunflower, for instance, will serve admirably. Open out the slit of a direct-vision spectroscope to, say, 1-25 inch and 1-15 inch. Lay the petal over the slit and point the instrument up towards a bright sky. On looking through the apparatus we perceive that we have two broad color-bands of red and green transmitted, while little, if any, blue light is visible.

Next, on a table close to a sky-lit window lay a piece of black velvet or cloth. Open the slit to its widest and point it down toward the table-top at an angle of, say, 45 degrees. In a good light we may perceive a faint spectrum band. Now lay the petal on the black cloth and bring the slit end as close to it as may be without cutting off sky-light, and note the bright red and green bands. In comparison, the red and green reflected by the black cloth is negligible. Thus the yellow petal both transmits and reflects red and green rays, and little else. Finally, half close the slit, reverse the tube so that the slit is next the eye, and lay the petal over the viewing end and look up toward the sky, when we get a yellow strip. Thus we learn that the petal reflects and transmits light which can be split up into red and green, but when combined is yellow. The yellow screen generally employed with ortho-plates cuts out most of the blue, but passes the green and red, but the latter has very little action on the plate.

THE Traill-Taylor Memorial Lecture is an institution that year by year increases the indebtedness of photographers in general to one who gave us a splendid example of whole-hearted disinterested devotion to photography. This year's discourse on "The Physical Chemistry of Negative-making Processes" deals with a topic which lies at the root of our craft.



A WINTER MORNING *Harry A. Brodine*

The lecturer is Dr. Luther, who is a Russian by nationality. He will lecture in English, which language he speaks fluently. Mr. Taylor for many years was editor-in-chief of THE PHOTOGRAPHIC TIMES.

IT IS curious to note how often fashion plays the larger part in matters photographic. Even in such prosaic affairs as lenses, printing papers, and also chemicals this or that form of apparatus or materials becomes the vogue. We have passed from the F 64 sharp-all-over lens-made negative to the no-lens pinhole sharp-nowhere effect. Carbon, platinum, gum bichromate, and silver print out processes by the dozen are now largely forgotten in the rush for oil or bromoil. But strangest of all is the way that fashion sways the choice of subject, taking in turn sunlit mudflats, birch, bracken and longshore subjects. One of the recent waves has swept our figures, generally ladies, close up to a lace curtained window. A skilful worker with a little originality, an acute eye for tone values, and a suitable subject may make a vastly pleasing effect, but the great crowd of sheeplike imitators have produced a flood of unlovely travesties. The moral is, avoid any semblance of imitation in subject or treatment, as you would abstain from picking pockets. Indeed, imitating another man's work and ideas is practically stealing his brains, and perhaps it would be less discreditable to take his purse. Has not someone said, 'Who steals my purse steals trash?"



WINTER WOODS



THE WINTER GIRL *Phillips, Cincinnati*

Monthly Foreign Digest

TRANSLATED BY HENRY F. RAESS.

COPPER-TIN INTENSIFIER.

By M. J. Desalme.

This new intensifier is suitable for negatives, slides and bromide paper. Slides developed with "pyro" and treated with this intensifier yielded a fine warm brown tone. A thin negative possessing a gray tone, after treating had acquired an intense gray-black color.

BLEACHING SOLUTION.

English.		Metric.
33 ozs.	Water	1000 c.c.
5 drams to 1 oz.	Cupric chloride	20-30.0 gms.
48-80 minims	Hydrochloric acid	3-5 c.c.

A short rinsing after bleaching removes the excess of cupric chloride as the latter is not retained in the film.

The silver constituting the image is converted into chloride by the above solution. In addition to the silver chloride, another reaction takes place in which an insoluble copper chloride is formed which unites with the silver chloride and strengthens the latter. To blacken the bleached image the author does not use the usual blackening agents but instead the following:

3⅓ ozs.	Water	100 c.c.
2½ drams	Stannous chhloride	10.0 gms.

When the stannous chloride (Sn Cl2) is in solution add 18 c.c. (9 drams) of sodium hydroxide of 40° Baumé (Sp. Gr. 1.357) and then sufficient water to make 250 c.c. (8 ozs.). The solution must be filtered and for use always made up fresh.

The picture appears very rapidly. The plate is then rinsed off and placed in a weak sodium bisulphite solution, then well washed and dried. Comparisons with the best mercury intensifier showed that this new method was superior. The fingers must not come in contact with the solution. Use a plate lifter.

Photographische Industrie, No. 18, 1912.

☆ ☆ ☆

LUMIERE'S CHROMATE REDUCER.

The following reducing solution works slowly, enabling one to carefully note the progress of the reduction. The solution will keep indefinitely.

English.		Metric.
33 ozs.	Water	1000 c.c.
15 grains	Potassium dichromate	1.0 gm.
16 minims	Sulphuric acid	1 c.c.

After the plate has been sufficiently reduced it is rapidly washed. If the reduction takes place too slowly it may be hastened by making the solution stronger.

Apollo, Vol. 26, No. 353.

☆ ☆ ☆

GOLD TONED BROMIDE PRINTS.

The print is first bleached in a mercuric chloride solution of suitable strength. It is then washed in about six changes of water, then placed in hydrochloric acid 1-40, the latter being changed three times. Finally the print is washed again for fifteen minutes in running water. The print is now ready for toning. Thiocyanate baths are less suitable than the ones containing sodium acetate.

English.		Metric.
27 ozs.	Sodium carbonate 1-2500 solution	825 cc.
50 grains	Sodium acetate	3.25 gms.
½ oz.	Gold chloride 1-100 solution	15 c.c.

The bleached and well washed print is placed in the above bath; where the image immediately appears. When of proper strength the print is washed for fifteen minutes in six changes of water and hung up to dry. The color of the print after drying is a purple-black.

Apollo, Vol. 16, No. 361.

LIGHT FOR DEVELOPING AUTOCHROME PLATES.
By F. Dillaye.

The original directions for developing autochrome plates stated that development must be carried out in absolute darkness. This is a great inconvenience, but as the plates are sensitive to green, yellow and even red rays, it is risky to examine the plates by any kind of light during their first development. The author has succeeded in devising a method for destroying the color sensitiveness of the plates and thereby permitting one to develop by ruby light.

The plates before development are placed for two minutes in the following solution in darkness:

English.		Metric.
10 ozs.	Water	300 c.c
1 oz.	Potassium bromide 10% sol.	30 c.c.
1½ drams	Sodium bisulphite commercial sol.	6 c.c.

At the end of two minutes the plates are rinsed and may then be placed in the developer in ruby light. The development is followed first by reflected light and later by transmited light.—*Bulletin de l'Assoc. Belge. Apollo,* Vol. 18, No. 407.

☆ ☆ ☆

"La Retouche du Cliche. Retouches chemiques, physiques et artistiques," by A. Courreges. Published by Gauthier-Villars, Paris, France. Price 1fr., 50c.

The author divides retouching into three methods, chemical, physical and artistic.

Under the chemical heading he speaks of intensifying and reducing, giving various solutions for accomplishing this. Physical retouching is applied principally to landscape and portrait negatives. In the case of landscapes it is the sky which usually requires some improvement. In regards to portraits, each portion of the face and head is separately treated. There are also retouching varnish formulas.

☆ ☆ ☆

"Das Photographieren mit Blitzlicht," By Hans Schmidt. Nine tables and 55 illustrations. Published by Wilhelm Knapp, Halle a. S., Germany. Price Mk. 3.60.

European photographers are much better supplied with apparatus for making flash light exposures than we are. One need but glance through this volume to realize this. There are many forms of little capsules, bags and electrical contrivances illustrated. The author is instructor in photography in the municipal professional school in Berlin. The subjects treated are magnesium tape and lamps for burning the same. Magnesium powder and the various forms of blow lamps; the various commercial forms of cartridges for compound powders. The speed of combustion, light intensity and size of flame; pure magnesium vs. compound powders; slow burning compound powders, loose and in cartridges; panchromatic slow and fast powders. Aluminum as a flash powder; various forms of smoke eliminators, such as bags and other methods; the use of reflectors; determining the necessary amount of pure magnesium and compound powder to use for a given picture; distance of the light from the object and speed of the lens, and the development of flashlight exposures. There is also an illustration and description of Schilling's instantaneous flashlight apparatus as used by him in photographing wild animals in Africa.

Discoveries

[All readers of The Photographic Times are invited to contribute to this Department reports of their Discoveries for which we will allow One Year's Subscription, on publication of the contribution.—The Editors.]

How can I tell—by looking at the finder—what will be the result of shifting the lens by moving the rising front of my hand camera? This is by no means an infrequent query, which should serve as a hint to camera hand manufacturers that the finder is not the efficient thing its name indicates. To place certain useful marks on the finder is a simple matter. On a table in front of an open window commanding a moderately distant view (of houses and landscape) place the camera firmly, so that it may remain a fixture until the experiment be concluded. with the lens centrally placed expose a plate (A). Next raise the lens as high as it will go, and expose a second plate (B). Then expose a third plate (C) with the lens midway between the positions employed for plates (A) and (B). Develop all three plates, and make rough prints from them.

First compare Print A with the view shown in the finder. With a fine-pointed, small size camel's hair paint brush and black varnish draw fine straight lines on the finder corresponding to the margins of the print. Now take Print B, and add the two necessary lines at the bottom and top to agree with the margins of this print. Repeat operations with Print C. Then block out entirely all the view shown outside these various marginal lines, leaving only the three different views corresponding to the three positions of the lens. It will be found helpful in preventing us confusing the top and bottom lines or limits of view if the lines corresponding to the top and bottom of Print C—*i. e.*, the intermediate position of the lens—be made by a series of fine dots instead of a continuous line. It should be clearly understood that as our finder is now adjusted for a distant view its margins will not be quite correct when the lens is focused for a near subject.

* * *

DRYING MOUNTED PHOTOS WITHOUT CURLING.

Get some pieces of heavy tin or zinc and cut them into narrow strips, then bend them in the shape of the letter U, forming troughs the length of the mount used. As soon as two photographs have been mounted place them back to back. Then put your pieces of tin around the edges of the mounts, one to each side. This takes four, but sometimes two are sufficient. Leave them on until the photos are thoroughly dry. It will then be found that the photographs are flat, and ready for delivery, so you do not have to put them in a press for days. This is no small item when you want to deliver your pictures in a hurry.

Paul W. Eddingfield.

* * *

TO PREVENT THE TRIPOD LEGS MARRING POLISHED FLOORS.

Procure about six inches of heavy rubber tubing of just sufficient inside diameter to fit snugly over the ends of tripod legs. Cut into three pieces and plug one end of each with a cork, coated with glue or rubber cement.

For use, the open ends of each are slipped over the points of the tripod legs, the cork furnishing a good "grip" on a polished floor without injury to latter. These tips are especially convenient for use with metal tripods.

W. S Davis.

* * *

OPERATING A FLASHLIGHT MACHINE.

I bought a slightly used second-hand Nichol's flashlight machine and found that it would not work as it was expected to work. The air escaped so easily through

the flashlight that there was scarcely any pressure on the camera shutter. Result was nothing doing until I fitted part of a wire nail in the tube where the bulb fits on and shut off about nine-tenths of the air passing through that end. Then the shutter worked all right, but the powder would not catch fire. Next operation was to get a small piece of absorbent cotton and spread it out very thin, sprinkle flashlight powder on it and wind it around the place where the fire from the alcohol spray comes through. Sift plenty of flashlight powder around. Thus fixed the machine is all that could be desired and a press of the single bulb does the work expected of it. Make your cotton fuse very light and thin so the explosion will blow out all the fire and not set fires where not wanted.

BURT STONE.

* * *

"HER PICTSHURE"

BY ALEC IRVING.

Shmoile away, Maggie! But Oi'm thinkin' you're shwate!
Faith, where's ther gossoon thot'll dare to say "no?"
Och, Mistress O'Neill,
It's intinsely Oi feel
Whin lookin' an' musin' upon thot pho-to.

Ould Camera, shure, musht hav' bin moighty plazed
Whin yez gazed in his oiy an' admoired his make;
An' yez flatthered him so!
Now phwat could he do
But ther purtiest pictshure he knows av to take?

Whin ther cap shut him up, did he splutther an' fuss
As ther boss wheeled him back wid a twist an' a twirl?
'Dade, wurruds could he shpake,
This form they moight take—
"Phwat shpalpane so bould do be weddin' thot girl?"

Now, Cammy, me boiy, if yez think thot Oi know,
Yez are grandly mishtaken Och, Cushla Macree!
Whin she will not tell you
Thot beholds her so thrue,
How can yez drame she'll ther sacret give me?

But, 'dade, she's thot shwate, as Oi said wance before,
An' Oi says so agin, though she shmoiles at me shtill;
Shtop, shtop yer beguilin',
Me poor heart is bilin'
Wid falin's an' things thot me body will kill!

Shure Maggie, yer rogue, will yez murther me quoite?
Don't be lavin' me here on this turrible brink;
For yez tould me ye'd be
So contintid wid me,—
Och! think av this, darlint; acushla, och, think!

An' tell me agin' an' me head will rest aisy,
Say ye're only a-tazin';—jist playin' a part;
Thin Oi'll floiy to yer soide
An' nivvirmore choide,
If yez whisper, "Dear Dan, ye're ther boiy fer me heart!"



Photographic Reviews

This year's American annual is an advance on all previous volumes and is the first of a new series. The book in consequence forms a volume of large proportions containing, as it does, upwards of 140 pages of literary and pictorial contributions.

The contributions are from leading workers in England, America, India, Canada, France, Germany South Africa, Australia, New Zealand, Austria, Spain, and many other places where pictorial photography is largely practised. The reproductions are of the best and represent a notable selection of the finest work of the year.

* * *

The publication of "Photograms of the Year," the pictorial annual for photographers, has always been a notable event during the past seventeen years. This well known and popular annual is essentially a pictorial record of the year's work with the camera, and as such it is eagerly looked for and studied, not only by those who may be regarded as pictorial workers in photography but by all who use a camera and are lovers of pictures in any form.

Since the death of the late editor (Mr. H. Snowden Ward) the publication has been taken over by the proprietors of "The Amateur Photographer," and is now edited by Mr. F. J. Mortimer, F.R.P.S.

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Undoubtedly "Photograms of the Year" is a book that every photographer who takes an interest in pictorial work should secure, and the illustrations, are worth the attention of every lover of good pictures. The price of the volume remains the same as the editions previously published, stiff paper covers, 2/6 net; cloth-boards 3/6 net. It is published by Hazell, Watson & Vinney, Ltd., 52 Long Acre, London, W.C., and is obtainable from all news agents and photographic dealers.

The editorial contribution deals with "The Year's Work—A Retrospect and Some Comments"; Mr. Antony Guest, the well-known critic, writes on "Paths of Progress"; Mr. F. C. Tilney writes a critical review of the Royal Photographic Society's exhibition and the London Salon of Photography; while other articles include "Pictorial Photography in France," by Robert Demachy of Paris; "Pictorial Photography in Germany," by Herr Matthies Masuren, of Halle; "Pictorial Photography in America," by Frank Roy Fraprie; "Pictorial Photography in Holland," by Adriaan Boer; "Pictorial Photography in Australia," by Walter Burke; "Pictorial Photography in Italy," by Chev. Annibalde Cominetti; "Pictorial Photography in Spain," by Jose Ortiz Echague.

* * *

"The Grand Opera Singers of Today," by Henry C. Lahee, Boston. L. C. Page & Co.

This attractive volume gives some accounts of the leading singers who have been heard in America during the present century. The author, not only gives an accurate history of the grand opera singers of today, but those whose career is likely to be of interest to the public. There are forty-eight full page plates in duogravure taken by prominent photographers.

* * *

The J. B. Lippincott Company, Philadelphia, have just issued a handsomely printed and attractively bound volume entitled "Photography of Today," by H. Chapman Jones. The author, Mr. Jones, is one of the best known authorities on photography, being president of the Royal Photographic Society of England, and lecturer on Photography at the Imperial College of Science and Technology. The title page plainly states the purpose of the

book, namely, to provide "a popular account of the origin, progress, and latest discoveries in the photographer's art, told in non-technical language." This work can be safely recommended as instructive and informative, and should be of interest to any photographer, either amateur or professional. The table of contents includes such titles as: Light, Its Nature and Effect; The Control of Light; Lenses, Old and New; The Exposure; The Development of the Plate; The Effects of Color and Its Control; The Photography of Color; Truth and Error in Photography; Instantaneous Photography and the Photography of Motion; Size and Scale, etc., the table of contents, however, giving no idea of the care with which the text matter has been brought up to the present day. The price of the book is $1.50, and can be supplied by *The Photographic Times Publishing Association.*

* * *

"The Raphael Book," by Frank Roy Fraprie, Boston. L. C. Page & Co.

There seems rooms for such a handy volume as this, setting forth as it does the facts of Raphael's life as we know them today. The author has not only given us an interesting account of Raphael's life, but makes clear his place in the development of art, together with a description of his paintings and frescoes. There are many reproductions in color and duogravure, which are sure to be of value and interest to the general reader as well as to the student.

* * *

Portrait for November contains an excellent cover likeness of our good, old friend, E. B. Core, of New York. Mr. Core stands at the head of his profession, particularly as a portrayer of children. He made a success in Cincinnati before he came to New York, and he has increased his reputation here since coming to the metropolitan city. An excellent group picture of children by Core embellishes this number of *Portrait.* Part Six, of the instructive series of articles on Home Portraiture, by Felix Raymer, is devoted to Shadow and Rembrandt effects, with illustrations.

The steady growth of Nature study at first hand, through personal observation, is one of the pleasantest signs of the times. In one direction this is evidenced by the large number of handbooks and guides to the subject which have appeared during the last decade. Among these one should certainly give a front place to a series of volumes issued by Messrs. Cassell & Co., under the title "Wild Flowers as They Grow, Photographed in Color, Direct from Nature," by H. Essenhigh Corke, with descriptive text by G. Clarke Nuttall. The fourth volume fully maintains the high standard and general excellence of its three predecessors. In these days one need hardly say that the first part, at any rate, of the study of a plant should be made when it is in its natural habitat. This Mr. Corke stimulates by his excellent color photography. To this Mr. Nuttall adds a few well-chosen botanical notes, which are wisely shorn of technical terms as far as is possible.

* * *

"A Camera Crusade Through the Holy Land," by Dwight Elmendorf, New York. Charles Scribners' Sons.

This book is a beautifully illustrated volume by Mr. Elmendorf, descriptive of a comprehensive trip through the Holy Land. It contains over a hundred illustrations from photographs by the author made from nature, and the frontispiece is a colored plate, also from a direct photograph. The book is divided into four departments, descriptive of the South, the North, Jerusalem, Plates and Text. The photographs themselves are not only illustrative of the subjects which they treat, but are pictorial as well, and will be found very good examples of artistic photography by those who are studying this phase of the subject. The letterpress is entertaining and instructive, and frequent reference is made to the Bible, both the Old and New Testament, connecting the scenes and the descriptions with the biblical narration. It is a particularly appropriate book for the approaching holiday season, and we can heartily recommend it to all of our readers, either as a gift, or for their own reading and study.

The price of the book, bound in cloth, with an illuminated cover, put up in a box, is $3.00, and will be sent post, or express, paid to our readers on receipt of that amount.

* * *

Anything and everything connected with the Balkan States looms so large just now that we turn with particular interest to an article by Clive Holland in the *Amateur Photographer,*" "For those," says the author, "who desire (when the present war is over and things have assumed normal conditions) an unconventional and picturesque photographic holiday, spiced perhaps with a modicum of risk, I can recommend the Balkans." The writer gives helpful information as to a choice of routes, with practical suggestions regarding outfit, apparatus, and so fourth. One gathers from this article that Montenegro is not so picturesque or pictorial as Servia; while Bulgaria beats them both in that respect. Although the girls and women-folk generally seem somewhat shy of the camera, yet a little discreetly distributed backsheesh to male relatives may greatly facilitate matters.

* * *

For those photographers who can only spare the odd half-hours before and after business any hint which tends to make the most use of these snatched periods is likely to be welcome. The stand or tank system of development is such a time-saver because half a dozen or a dozen exposed plates can be slipped into a grooved tank containing a dilute developer, and left pretty much to themselves for, say, half an hour, while the worker is occupied with other matters. In *Photographic Scraps* for this month is given a formula for the use of paramidophenol—a developer that I have used for this purpose with every satisfaction—*e. g.,* water 1 pint, potass, metabisulphite 24gr., paramidophenol 4gr., soda carbonate (crystals) 40gr. For practical notes on this topic the reader is advised to consult the above monthly leaflet, which is obtainable (gratis) from any photographic dealer.



Items of Interest

PHOTOGRAPHS IN A VOLCANO.

Some striking photographs wereshown in a recent number of *The Illustrated London News*, which were actually made within the crater of Vesuvius. Says *The News*:

"In the middle of last month, Prof. A. Malladra, of the Vesuvius Observatory, descended into the crater of Mount Vesuvius to make scientific examination of it. By means of a 500-foot rope the Professor and another expert, named Varvazze, descended to a depth of 380 feet and landed on crags of lava jutting over an abyss some 150 feet lower. Here a 350-foot rope was fixed and descent was made into a great fissure extending to the bottom of the crater, which was attained at a depth of 1,000 feet. The explorers placed a red flag on the crater floor as a sign of their daring; and remained on the bottom for about two hours, during which time Professor Malladra made important observations and took a number of photographs illustrating the volcano's activity. Although, of course, precautions were taken, Signor Malladra and his assistant were both in danger, at times, from suffocating gases. The temperature varied from 90 degrees to 88 degrees Fahrenheit. The expedition, as a whole, took nearly nine hours, and the results, it need scarcely be said, are likely to prove of very exceptional interest. It will be recalled that, since the great eruption of some eleven years ago, Vesuvius has been the scene of landslip after landslip, and the crater has so changed in shape that it is practically unrecognizable by those who knew it only of old. The pointed summit, which was long familiar, has been flattened and rounded, and the beautiful high sugar-loaf cone formed by the feathery plume of smoke is no longer to be seen. Under normal conditions, Vesuvius gives out only small quantities of steam, together with sulphurous gases, volcanic ashes, and dust. Greater activity brings with it great gray steam clouds and large blocks and streams of lava. Mount Vesuvius, which has been known as active since 79, the year of the great eruptions which destroyed Pompeii, Herculaneum, and Stabiæ, remains active, although it has had various times of repose, some of them extending over hundreds of years. It has made history in ways other than by devastating. It is probable, for example, that the Romans and the Latins fought their decisive battle on its northern slopes in 340 B. C.; while it became the stronghold of Spartacus and his fugitive slaves in 73 B. C."



Trade Notes

[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—The Editors.]

Among the friends you will remember at Christmas time are those who have shared the outings on which your kodak has played an important part. You can make attractive little gifts to these friends by making prints from your summer negatives on Kodak Velvet Green Paper and mounting them attractively, or by making Velox prints and coloring them with Velor Water Color Stamps. Such gifts always have the element of personal interest that is appreciated.

⁂ ⁂ ⁂

For the amateur who has only his evenings to devote to photography, the making of enlargements has been a problem which could only be solved at a considerable expense, and, as a consequence, many have been denied the pleasure of this most interesting work.

The Eastman Kodak Co., did much to simplify enlarging by daylight, with their Brownie Enlarging Camera, but the illuminator for use with this camera makes bromide enlarging another of the pleasures for the amateur's long winter evenings.

The Brownie Enlarging Camera Illuminator may be used with the enlarging camera or it will furnish sufficient light for making bromide enlargements of greater dimensions with a camera and improvised enlarging easel. A post card to the Eastman Kodak Co., Rochester, N. Y., will bring you the latest edition of "Bromide Enlarging With a Kodak."

⁂ ⁂ ⁂

Most of us at some time have been puzzled to find a suitable gift-book for a boy or girl. Mr. F. Martin Duncan has just come to our aid with another of his delightful "Nature" books called "The Seashore" (Grant Richards). The volume is embellished with 112 reproductions of photographs by the author, and one need scarcely tell readers of this column that Martin Duncan has few if any equals in this class of camera work. Again, as a ripened lecturer on natural history he has acquired the not too common art of conveying a vast fund of sound, up-to-date information in simple, non-technical, and eminently readable language.

⁂ ⁂ ⁂

The G. Cramer Dry Plate Company, of St. Louis, has issued their new X-ray manual, which they will be pleased to furnish on application.

This little manual is dedicated to those who will appreciate it. The novice, who is appalled at an exhaustive treatise, may find interest in these short and simple annals. Even the veteran may be reminded of things he has forgotten.

The contents include:

Some fundamental facts about X-ray apparatus.

Some advice upon radiographic technique.

Some instructions in the handling, care and development of X-ray plates.

Some hints upon avoiding common troubles.

⁂ ⁂ ⁂

The Ansco Company, of Binghamton, N. Y., wish to secure twenty-four good photographs, and offer most attractive cash prices for them. The photographs will be submitted to a committee consisting of W. I. Lincoln Adams, Editor of this magazine, Wilfred A. French, Editor *of Photo-Era*, and Frank R. Fraprie, Editor of *American Photography*. Full particulars may be obtained by addressing Department "X," Ansco Company, Binghamton, N. Y.

The Photographic Times

With Which is Combined

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SUBSCRIPTION RATES one dollar and fifty cents a year, payable in advance. Foreign Postage 50 cents, Canadian Postage 25 cents. Single copies 15 cents. Subscriptions to the *Photographic Times* received by all dealers in photographic materials in this and foreign countries, also the American News Co. and all its branches.

POSTAGE IS PREPAID by the publishers for all subscriptions in the United States, Hawaiian Islands, Philippine Islands, Guam, Porto Rico, Tutuila, Samoa, Shanghai, Canal Zone, Cuba, and Mexico. For all other Countries in Postal Union, except Canada, add fifty cents for Postage. Canadian postage 25 cents.

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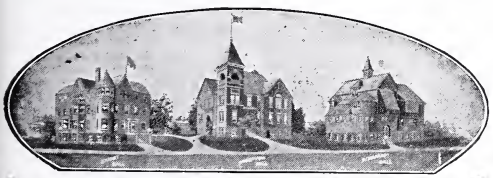
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ROCHESTER, N. Y., *The Kodak City.*

HOW TO PHOTOGRAPH THE CHRISTMAS TREE.

The Christmas Tree as a rule is a very stubborn subject for the Kodak, because it is usually placed in a corner of the room between two windows. The strong light from the windows accentuates the shadows among the branches of the tree and it is a very hard matter to get a good light on the tree and not be compelled to photograph against the light of one of the windows.

The Christmas tree problem is very easily solved. Make the picture by flashlight. It's very simple and there is no danger if reasonable precautions are taken. The fact that the tree is usually in one corner of the room is an advantage, because it allows of the camera being set up in the opposite corner or through a doorway, at the proper distance to get a full view of the tree from top to bottom.

If the Kodak is set up in an adjoining room and pointed through a doorway it is a very simple matter to place a flash sheet most anywhere in the first room and not have the direct rays of light enter the lens.

Care should be taken not to have the flash near curtains or other inflammable material, and one flash sheet should not be pinned on top of another. If it is a large room and two flash sheets are necessary, pin a large piece of cardboard to the wall or door casing, and when one flash sheet has been pinned to this cardboard, another may be pinned to another cardboard at a safe distance from the first and one sheet lighted directly after the other. For this purpose use a long wax taper or fasten a match to the end of a yard stick.

The Eastman Flash Sheet Holder, however, offers the most convenient means for holding and igniting the flash sheet, and as it may be held in the hand and a match applied to the sheet through the small round opening in the back, it is readily seen that it may be held at any height and in any part of the room and the flash made with no inconvenience and no danger whatever to the operator.

The flash should be about two-thirds the height of the tree, and the Kodak one-half the height of the tree. The blinds should be drawn but the lights need not be turned out, unless a very bright light comes within the angle of the lens. Set the shutter for time exposure, open the shutter, light the flash sheet, close the shutter and a good picture will almost invariably be the result.

BITS OF COLOR.

What a touch of realism a bit of color adds to the picture, and how easy it is to color the print with Velox Transparent Water Color Stamps. Have you ever tried it ?

There are many ways of making attractive little Christmas and New Year's cards by selecting attractive landscape prints, trimming them down to odd sized panels or ovals and coloring and mounting them on the little Christmas cards that may be had in the stores or by making the cards from some of the fine grades of white or cream cover paper or thin cardboard that may be had at your Kodak Dealers or in the Stationery Stores.

The print should be colored to be most attractive, and Velox Water Color Stamps make the coloring of the print both simple and inexpensive. A very good effect in mounting the colored print is secured as follows: Trim a piece of thin cardboard to a size slightly larger than the print to be mounted. Paint a stripe of gold around the edge of this card so the print will have the gold paint for a background when mounted. Carefully mount the print on the card and allow it to dry under pressure, and when dry, trim down the card until there is a gold line about one-

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

eighth of an inch wide. Mount on a white or cream card, and it will be found that the gold line adds greatly to the effectiveness of the colored print.

Complete instructions for using Velox Transparent Water Color Stamps will be found in each book of stamps. The book consists of twelve leaves of color, so perforated that a small stamp of any desired color may be readily torn out and placed in a small quantity of water, when the color will dissolve and leave its paper support.

There are dozens of uses for these colors other than the coloring of photographs. Your dealer has them.

Velox Transparent Water Color Stamps, per book of twelve colors, . . . $ .25

MASKING.

A good picture means more than care in the selection of a subject and making of a negative. The taste used in masking, trimming, mounting, framing or passepartouting the print or enlargement often makes or mars the effectiveness of the picture.

A picture does not of necessity need to be the same size as the negative—in fact should not be the same size unless everything in the negative is of importance to the picture.

Lay a print in front of you and try covering up portions of it, using pieces of cardboard for the purpose. You will probably find the picture is more attractive with a little taken off the top or bottom or one side, and if it looks best that way, that is the way it should be trimmed or masked.

In making enlargements, the masking of the negative need not affect the size of the enlargement, except in the case of the fixed focus Brownie Enlarging Camera, and in this case the mask only cuts out the objectionable parts and does not change the size of the objects themselves.

There is a decided advantage in masking the negative in the Brownie Enlarging Camera, and that is the securing of white margins. Of course the width of the white margin depends upon the amount of the negative that is covered by the mask.

If you are using the No. 4 Brownie Enlarging Camera, which accommodates a 4 x 5 or 3¼ x 5½ negative and makes an 8 x 10 enlargement, a perfectly even white margin of good proportions may be had by using a mask with an opening 2½ x 3¼ inches. If the mask is carefully adjusted in the Enlargement Camera, with ¼ inch more margin at the bottom than at the top, the enlargement will have a white margin of 1½ inches at the sides and top and two inches at the bottom.

In this way the choice parts of negatives of various sizes may be enlarged to a uniform size with a margin of excellent proportions for framing or passepartouting.

A neat, embossed line adds much to the attractiveness of these prints and is very easily secured. Place the print against a window and draw a line on the back, about a quarter of an inch from each of the four sides of the picture, which is readily seen through the paper. Now cut a piece of thin cardboard to fit exactly within these lines.

Place the cardboard against the window and the face of the print against the cardboard, adjusting same so the lines on back of print are even with the edges of the cardboard.

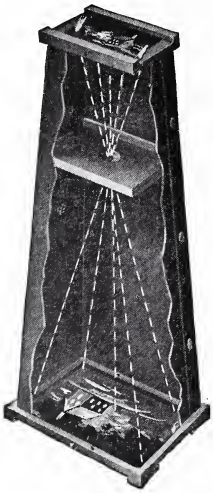
Take a blunt tool, such as the handle of a pocket knife, and run over the back of the print along the edge of the cardboard, pressing the print over the edge of the board, and a fine embossed line is quickly made around the print.

Passepartout or frame one of these prints with a narrow moulding and the effect is excellent.

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

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No focusing, No dark-room, No experience necessary when VELOX is used.

It's all by daylight with the

Brownie Enlarging Camera

Just place the film in the small end—the Velox paper in the large end and expose to daylight.

THE PRICE.

No. 2 Brownie Enlarging Camera, for 5 x 7 Enlargements, from 2¼ x 3¼ negatives,	$2.00
No. 3, ditto, for 6½ x 8½ Enlargements from 3¼ x 4¼ negatives,	3.00
No. 4, ditto, for 8 x 10 Enlargements from 4 x 5 negatives (will also take 3¼ x 5½ negatives),	4.00



Place the Light where you want it.

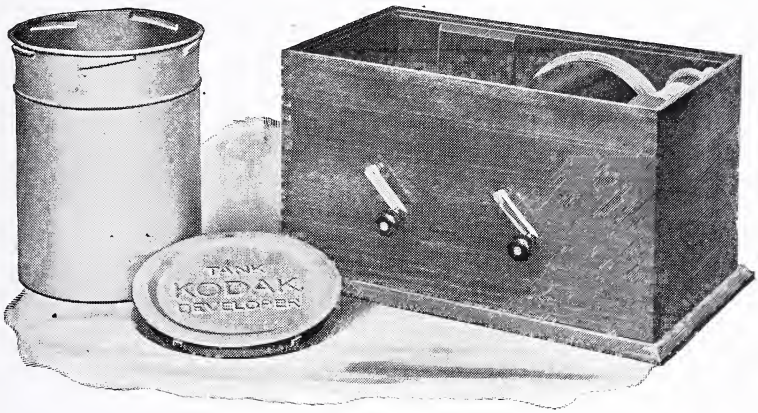
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It is even more simple to make home portraits and groups by flash-light than by daylight because the light doesn't change.

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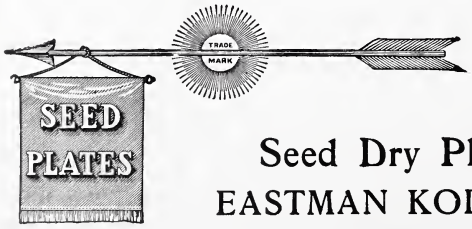
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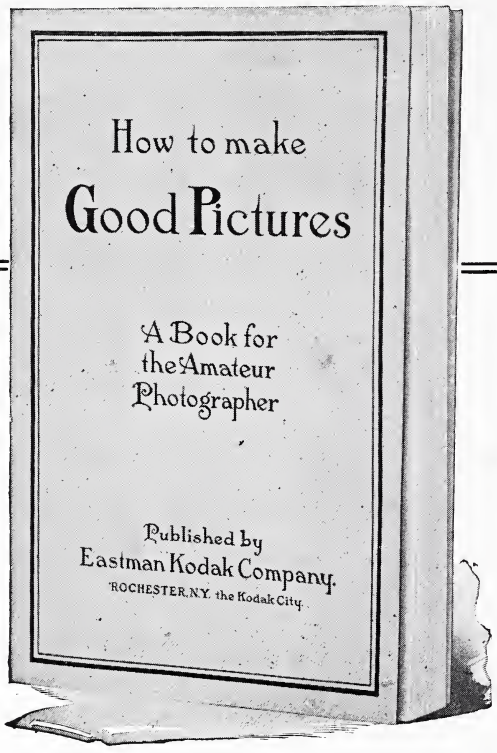
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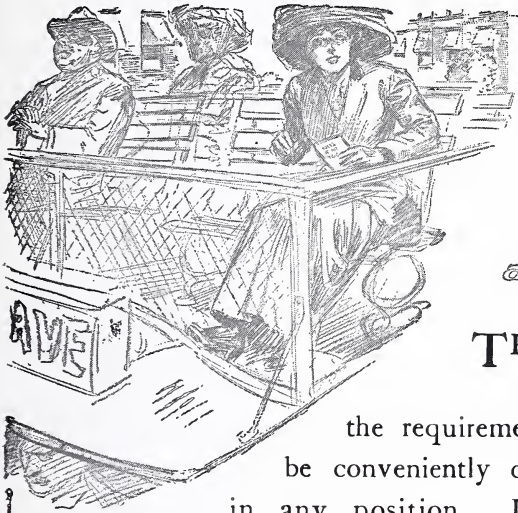
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How to Make Good Pictures, $ .25

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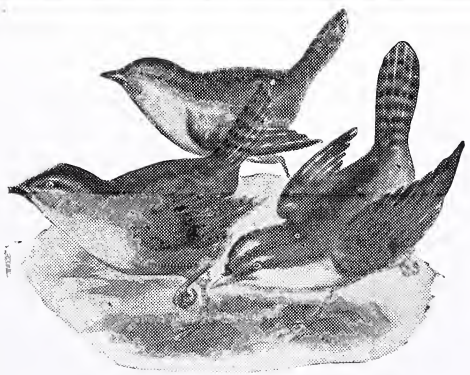


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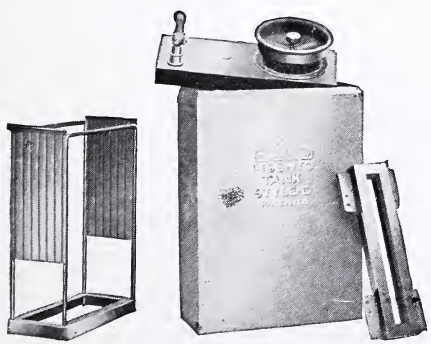
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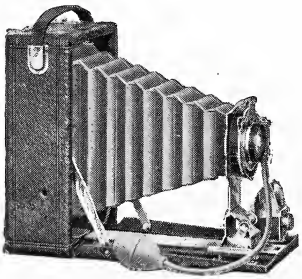
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It is indeed a merry Christmas for the one who gets a

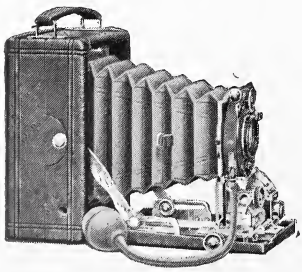
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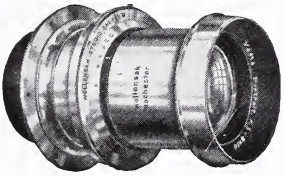
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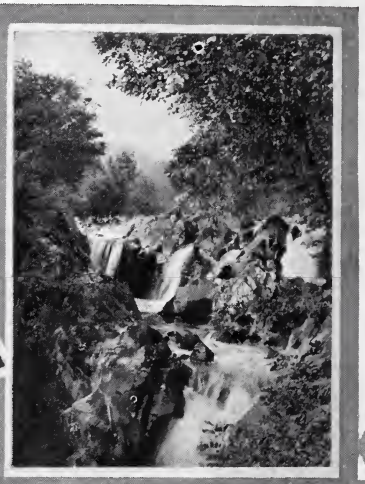
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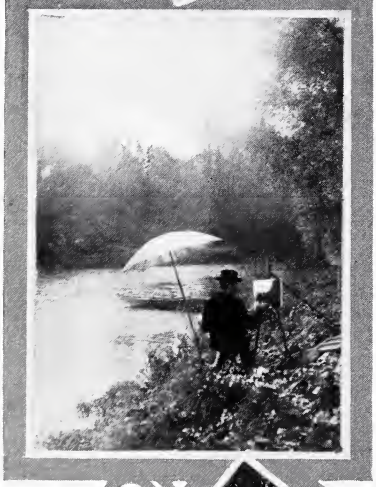
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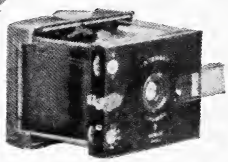
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